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IRRIGATION DEPARTMENT, PUNJAB.

ADMINISTRATION REPORT

FOR

1916-17.

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ADMINISTRATION REPORT FOR THE YEAR 1916-17.

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| Lower Bari Doab Canal | " | " | 16-17 | " |
| Upper Chenab Canal | " | " | 18-19 | " |
| Lower Chenab Canal | " | " | 20-21 | " |
| Lower Jhelum Canal | " | " | 24-25 | " |

PUNJAB CANALS.

| YEAR. | | | | AREA IRRIGATED, IN ACRES. | | |
|-----------|-----|-----|-----|--------------------------------|--------------------------------|-----------|
| | | | | Punjab Canals, Major Works. | Punjab Canals, Minor Works. | Total. |
| 1887-1888 | ... | ... | ... | 1,422,775 | 918,328 | 2,341,103 |
| 1888-1889 | ... | ... | ... | 1,749,957 | 997,428 | 2,747,385 |
| 1889-1890 | ... | ... | ... | 1,863,456 | 994,710 | 2,858,166 |
| 1890-1891 | ... | ... | ... | 2,033,500 | 982,953 | 3,016,456 |
| 1891-1892 | ... | ... | ... | 2,144,392 | 1,049,154 | 3,193,546 |
| 1892-1893 | ... | ... | ... | 1,847,882 | 1,079,709 | 2,927,591 |
| 1893-1894 | ... | ... | ... | 1,908,654 | 958,654 | 2,867,308 |
| 1894-1895 | ... | ... | ... | 1,855,858 | 1,063,296 | 2,919,154 |
| 1895-1896 | ... | ... | ... | 2,852,383 | 989,200 | 3,841,583 |
| 1896-1897 | ... | ... | ... | 3,649,303 | 980,110 | 4,629,413 |
| 1897-1898 | ... | ... | ... | 4,053,289 | 1,158,360 | 5,211,649 |
| 1898-1899 | ... | ... | ... | 3,372,501 | 981,264 | 4,353,765 |
| 1899-1900 | ... | ... | ... | 4,384,972 | 859,522 | 5,244,494 |
| 1900-1901 | ... | ... | ... | 4,642,852 | 1,857,699 | 6,500,551 |
| 1901-1902 | ... | ... | ... | 4,491,888 | 981,521 | 5,473,409 |
| 1902-1903 | ... | ... | ... | 4,864,274 | 815,690 | 5,679,964 |
| 1903-1904 | ... | ... | ... | 5,610,787 | 779,547 | 6,390,334 |
| 1904-1905 | ... | ... | ... | 5,689,132 | 617,252 | 6,306,384 |
| 1905-1906 | ... | ... | ... | 6,163,369 | 751,067 | 6,914,436 |
| 1906-1907 | ... | ... | ... | 5,902,995 | 808,317 | 6,711,312 |
| 1907-1908 | ... | ... | ... | 5,515,886 | 524,558 | 6,040,444 |
| 1908-1909 | ... | ... | ... | 6,385,050 | 968,096 | 7,353,146 |
| 1909-1910 | ... | ... | ... | 6,117,004 | 969,607 | 7,086,611 |
| 1910-1911 | ... | ... | ... | 6,270,757 | 956,285 | 7,227,042 |
| 1911-1912 | ... | ... | ... | 7,469,645 | 862,247 | 8,331,892 |
| 1912-1913 | ... | ... | ... | 7,461,251 | 968,130 | 8,429,381 |
| 1913-1914 | ... | ... | ... | 7,351,721 | 971,748 | 8,323,469 |
| 1914-1915 | ... | ... | ... | 7,883,628 | 1,079,413 | 8,963,041 |
| 1915-1916 | ... | ... | ... | 7,982,532 | 902,279 | 8,884,811 |
| 1916-1917 | ... | ... | ... | 8,433,867 | 1,085,957 | 9,519,824 |

From 1894-1895 to 1905-1906 the total areas shown are *net*, thereafter the areas are *gross*.

The areas include the Swat River Canal up to 1900-1901 ; after which date the canal was transferred to the North-West Frontier Province.

DIAGRAM
 SHOWING TOTAL AREA IRRIGATED
 BY
PUNJAB CANALS—MAJOR AND MINOR WORKS.

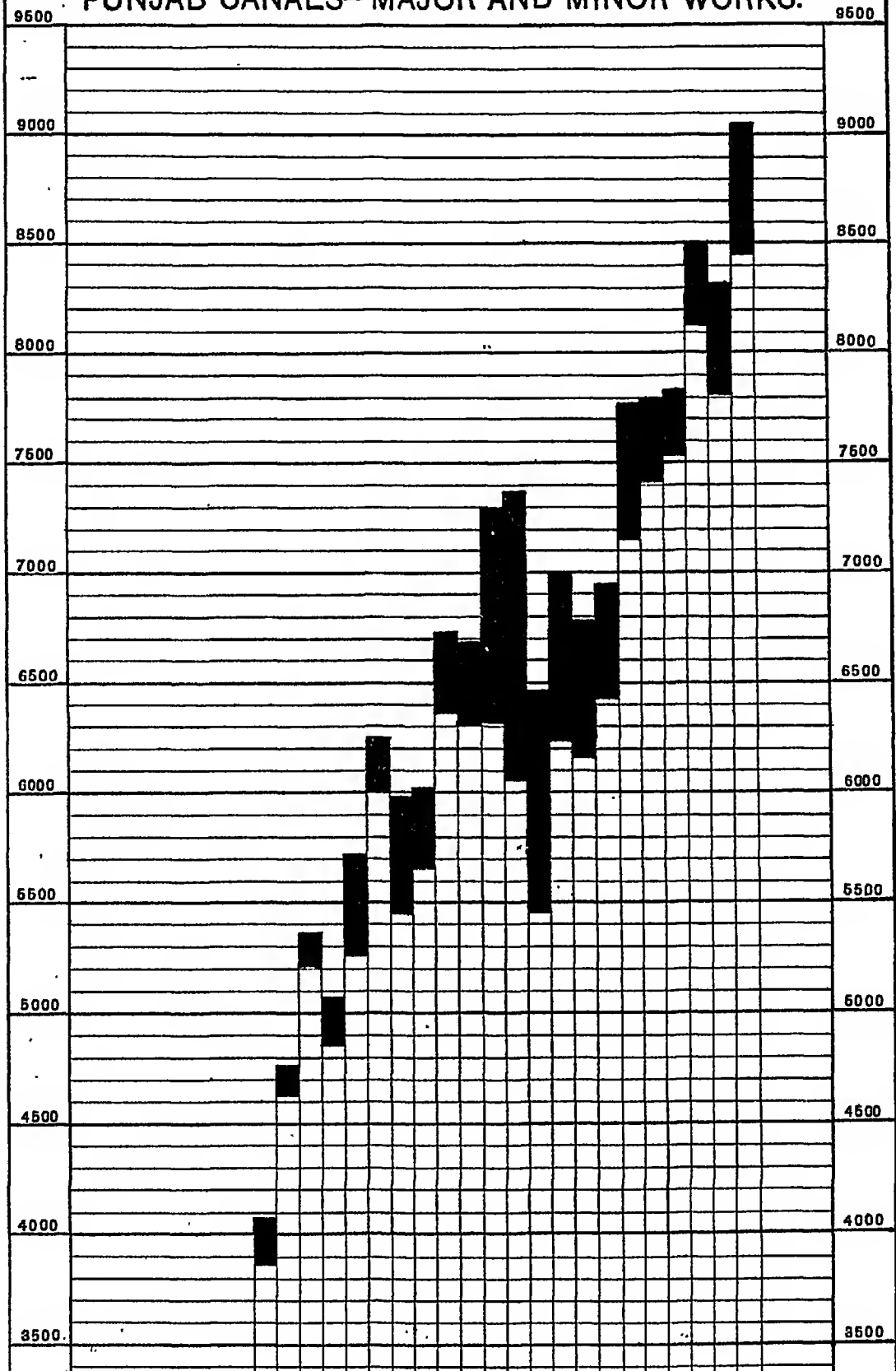
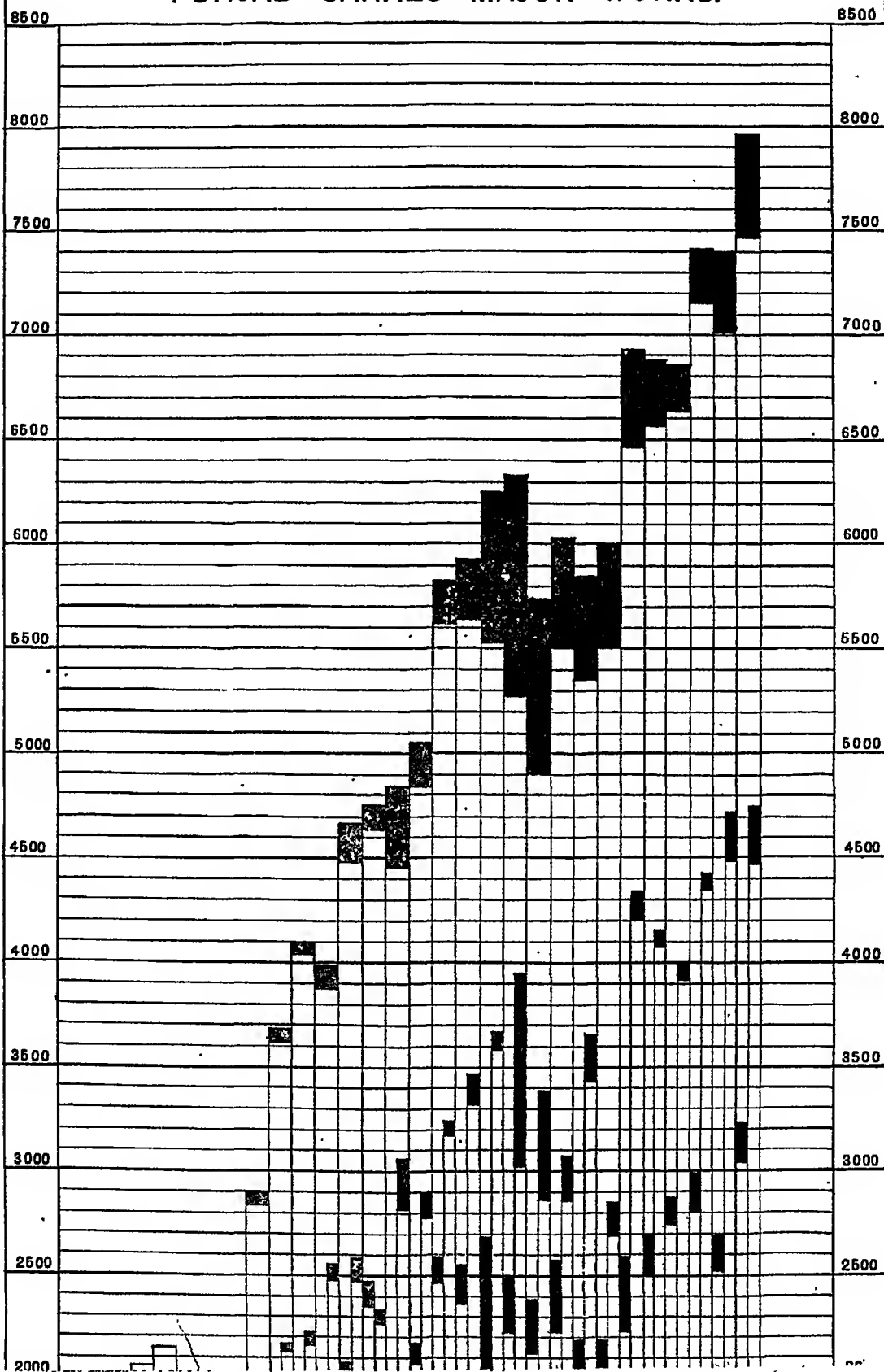


DIAGRAM SHOWING TOTAL AREA IRRIGATED BY PUNJAB CANALS—MAJOR WORKS.



PUNJAB CANALS, MAJOR WORKS.

| YEAR. | AREA IRRIGATED, IN ACRES. | | | REMARKS. |
|-----------|---------------------------|-----------|-----------|---|
| | Kharif. | Rabi. | Total. | |
| 1887-1888 | 645,816 | 776,029 | 1,422,775 | Lower Chenab Canal opened. |
| 1888-1889 | 715,682 | 1,034,325 | 1,749,957 | |
| 1889-1890 | 661,677 | 1,201,779 | 1,863,456 | |
| 1890-1891 | 757,535 | 1,275,965 | 2,033,500 | |
| 1891-1892 | 697,454 | 1,416,988 | 2,114,392 | Sirsa Branch of Western Jumna Canal opened. |
| 1892-1893 | 323,235 | 1,024,647 | 1,347,882 | Decrease due entirely to the favourable winter rains of 1892-93 which greatly contracted the irrigated rabi area. |
| 1893-1894 | 711,001 | 1,192,653 | 1,903,654 | Decrease as compared with 1891-92, due to general rainfall in rabi 1893-94, and would have been greater but for new irrigation on Chenab Canal. |
| 1894-1895 | 703,930 | 1,151,925 | 1,855,858 | Decrease due to very favourable rainfall during rabi, particularly in Sirhind and Western Jumna Canal tracts. |
| 1895-1896 | 935,827 | 1,806,556 | 2,852,383 | Increase chiefly due to partial failure of rains of 1895 and subsequent drought. |
| 1896-1897 | 1,531,969 | 2,114,334 | 3,646,303 | Increase due to drought. |
| 1897-1898 | 1,777,563 | 2,275,724 | 4,053,289 | Increase due to favourable year for irrigation and extensions. |
| 1898-1899 | 1,413,822 | 2,455,679 | 3,872,501 | Decrease in kharif due to favourable state of rivers and scanty rainfall. |
| 1899-1900 | 1,888,308 | 2,496,574 | 4,384,972 | |
| 1900-1901 | 2,354,174 | 2,238,678 | 4,612,852 | |
| 1901-1902 | 1,686,043 | 2,805,795 | 4,491,838 | Lower Jhelum Canal opened. |
| 1902-1903 | 2,071,363 | 2,792,911 | 4,864,274 | The Upper Sutlej Inundation Canals were transferred from head "Minor Works" to "Major Works" from 1st April 1902. |
| 1903-1904 | 2,450,789 | 3,160,018 | 5,610,787 | The Indus Inundation Canals were transferred from head "Minor Works" to "Major Works" from 1st April 1903. |
| 1904-1905 | 2,351,786 | 3,307,346 | 5,659,132 | |
| 1905-1906 | 2,291,460 | 3,868,911 | 6,160,371 | Decrease in kharif due to cotton failure. |
| 1906-1907 | 2,435,219 | 3,467,776 | 5,902,995 | |
| 1907-1908 | 2,226,291 | 3,259,035 | 5,515,356 | Decrease due to abnormally low supplies in the rivers. |
| 1908-1909 | 2,695,518 | 3,689,532 | 6,385,050 | |
| 1909-1910 | 2,285,870 | 3,831,184 | 6,117,004 | |
| 1910-1911 | 2,254,833 | 4,016,421 | 6,270,757 | |
| 1911-1912 | 2,755,324 | 4,714,321 | 7,469,645 | |
| 1912-1913 | 2,929,309 | 4,531,942 | 7,461,251 | Upper Chenab Canal opened |
| 1913-1914 | 3,069,950 | 4,281,771 | 7,351,721 | Lower Bari Doab Canal opened. |
| 1914-1915 | 3,184,751 | 4,698,877 | 7,883,628 | |
| 1915-1916 | 2,886,678 | 5,095,954 | 7,982,532 | Upper Jhelum Canal opened. Decrease in kharif due to drought and abnormally low supplies in the rivers. |
| 1916-1917 | 3,441,467 | 5,052,400 | 8,493,867 | |

The areas include the Swat River Canal up to 1900-1901, after which date the canal was transferred to the North-West Frontier Province.

From 1894-95 to 1905-1906 the total areas shown are net; thereafter the areas are gross.

PUNJAB CANALS, MINOR WORKS.

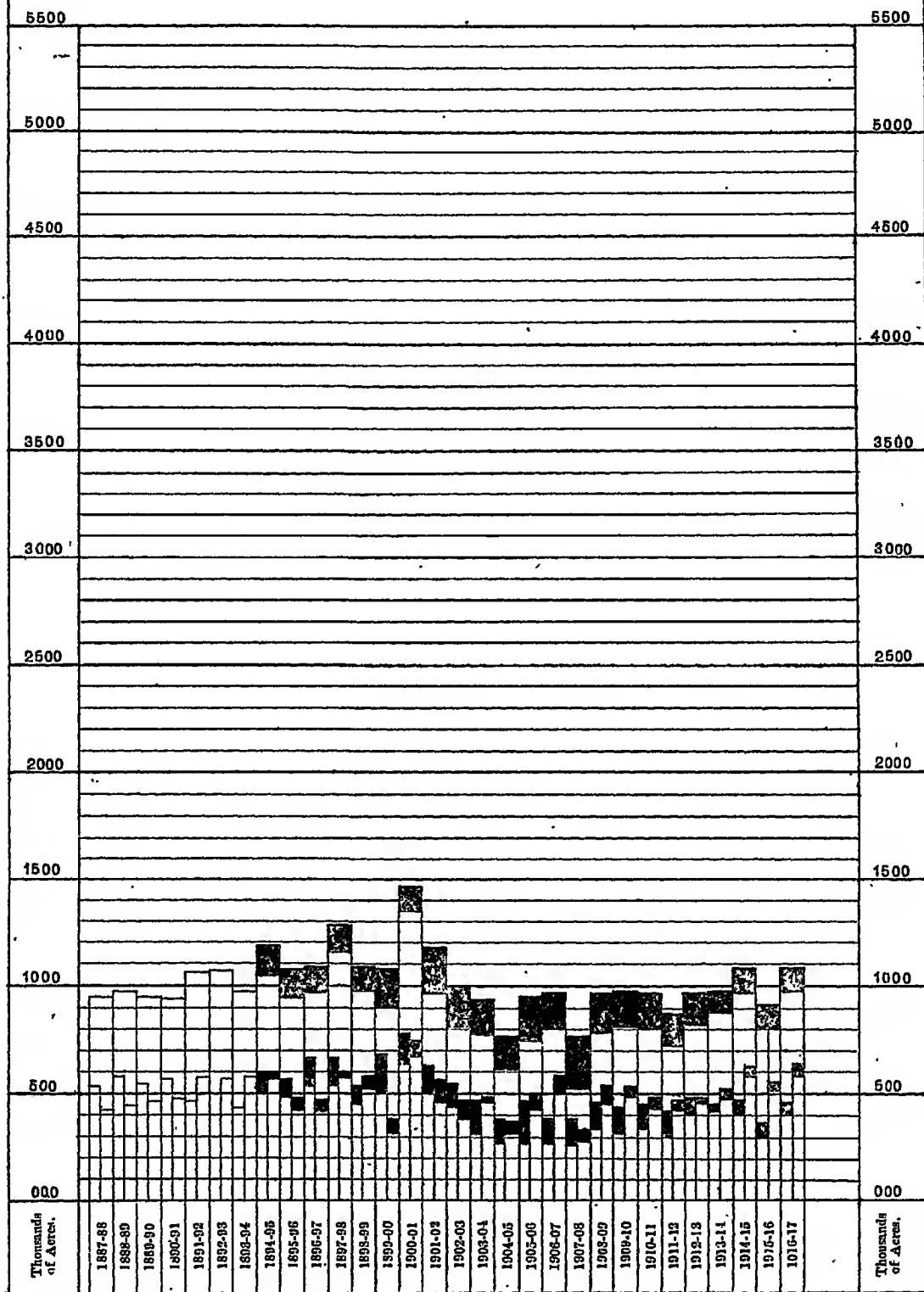
| YEAR. | AREA IRRIGATED, IN ACRES. | | | REMARKS. |
|---------------|---------------------------|---------|-----------|---|
| | Kharrif. | Rabi. | Total. | |
| 1887-1888 ... | 805,095 | 413,233 | 918,328 | |
| 1888-1889 ... | 571,558 | 425,870 | 997,428 | |
| 1889-1890 ... | 542,112 | 452,598 | 994,710 | |
| 1890-1891 ... | 520,408 | 462,548 | 982,956 | |
| 1891-1892 ... | 452,490 | 596,664 | 1,049,154 | |
| 1892-1893 ... | 491,151 | 568,558 | 1,079,709 | Rivers rose late, but subsequent supplies were good, and rainfall was favourable, the result being the largest area on record up to date. |
| 1893-1894 ... | 469,917 | 548,747 | 958,664 | Decrease due to the destruction of kharrif crops by high floods and to less favourable working of the canals. |
| 1894-1895 ... | 500,218 | 563,048 | 1,063,266 | |
| 1895-1896 ... | 477,957 | 461,243 | 939,200 | |
| 1896-1897 ... | 533,745 | 426,365 | 960,110 | |
| 1897-1898 ... | 565,562 | 592,778 | 1,158,360 | |
| 1898-1899 ... | 453,402 | 530,862 | 984,264 | |
| 1899-1900 ... | 520,893 | 338,629 | 859,522 | |
| 1900-1901 ... | 669,563 | 688,136 | 1,357,699 | |
| 1901-1902 ... | 508,416 | 573,105 | 981,521 | |
| 1902-1903 ... | 424,819 | 390,871 | 815,690 | Decrease due chiefly to the transfer of the Upper Sutlej Inundation Canals from head "Minor Works" to "Major Works" from 1st April 1902. |
| 1903-1904 ... | 316,418 | 463,129 | 779,547 | Decrease due chiefly to the transfer of the Indus Inundation Canals from head "Minor Works" to "Major Works" from 1st April 1903. |
| 1904-1905 ... | 296,636 | 320,616 | 617,252 | |
| 1905-1906 .. | 298,279 | 432,788 | 751,067 | |
| 1906-1907 ... | 295,898 | 507,419 | 803,317 | |
| 1907-1908 ... | 259,074 | 266,484 | 524,558 | |
| 1908-1909 ... | 442,058 | 526,008 | 968,066 | |
| 1909-1910 ... | 426,020 | 513,587 | 969,607 | |
| 1910-1911 ... | 459,270 | 497,015 | 956,285 | |
| 1911-1912 ... | 402,641 | 459,606 | 862,247 | |
| 1912-1913 ... | 467,957 | 509,173 | 968,130 | |
| 1913-1914 ... | 461,872 | 506,871 | 971,743 | |
| 1914-1915 ... | 466,107 | 613,306 | 1,079,413 | |
| 1915-1916 ... | 362,607 | 539,672 | 902,279 | Decrease due to drought and abnormally low supplies in the rivers. |
| 1916-1917 ... | 452,348 | 633,609 | 1,085,957 | |

The above includes the areas irrigated by the Sanjhar Provincial Canals from 1890-1891 inclusive

The above includes the areas irrigated on Ghaggar Canals, British and Bikaner State.

From the year 1891-1895 to 1905-1906 the areas shown are net; thereafter the areas are gross.

DIAGRAM SHOWING TOTAL AREA IRRIGATED BY PUNJAB CANALS—MINOR WORKS.



REFERENCES.

The first sub-division of each annual column denotes the "Kharif" area, coloured red, and the second the "Rabi" area, coloured blue.

The black portions represent area remitted; the drab, net area, from the year 1894-95.

PUNJAB CANALS, MAJOR WORKS.

| YEAR. | Capital outlay, Direct and Indirect, to end of year. | Interest charges to end of year. | Net revenue to end of year. | Accumula- ted profits to end of year (column 4— column 3). | FOR THE YEAR. | | | |
|------------|--|--|-----------------------------------|--|-------------------|----------------------|-----------------|---------------------------|
| | | | | | Gross revenue. | Working expenses. | Net revenue. | Percentage on capital. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| 1887-1888 | 5,76,25,828 | 3,18,46,764 | 6,00,35,681 | 1,80,69,867 | 49,05,923 | 17,01,248 | 28,04,675 | 5.99 |
| 1888-1889 | 5,80,43,400 | 3,40,74,459 | 5,83,37,698 | 1,02,63,180 | 43,64,904 | 19,72,387 | 23,92,517 | 4.06 |
| 1889-1890 | 6,00,98,478 | 3,68,49,803 | 5,61,80,320 | 1,98,80,512 | 40,66,797 | 21,14,116 | 28,62,682 | 4.74 |
| 1890-1891 | 6,21,71,861 | 3,86,93,787 | 5,98,37,074 | 2,11,43,307 | 68,30,440 | 21,78,686 | 46,51,754 | 6.85 |
| 1891-1892 | 6,70,91,026 | 4,11,74,623 | 6,83,26,123 | 2,24,61,803 | 60,10,990 | 22,51,938 | 37,59,052 | 5.95 |
| 1892-1893 | 6,87,92,324 | 4,37,93,807 | 6,79,83,241 | 2,42,54,647 | 69,09,140 | 24,51,631 | 44,57,509 | 6.24 |
| 1893-1894 | 7,34,89,876 | 4,65,46,772 | 7,08,89,491 | 4,13,40,519 | 53,53,977 | 24,45,060 | 29,08,917 | 8.05 |
| 1894-1895 | 7,64,93,573 | 4,94,29,432 | 7,42,04,493 | 2,47,75,651 | 69,65,551 | 26,60,549 | 43,05,002 | 4.88 |
| 1895-1896 | 8,02,57,057 | 5,24,41,585 | 7,87,76,591 | 2,63,95,620 | 70,08,254 | 28,40,474 | 41,67,780 | 5.31 |
| 1896-1897 | 8,41,00,556 | 5,59,01,216 | 8,06,34,083 | 3,10,32,817 | 1,09,44,448 | 30,87,005 | 78,47,443 | 9.34 |
| 1897-1898 | 8,70,19,666 | 5,89,92,103 | 9,66,36,223 | 3,97,44,093 | 1,21,89,419 | 31,86,227 | 90,02,192 | 10.85 |
| 1898-1899 | 9,02,16,631 | 6,22,82,641 | 10,44,91,814 | 4,22,09,178 | 1,34,07,093 | 35,61,505 | 68,45,588 | 9.93 |
| 1899-1900 | 9,03,47,216 | 6,57,40,457 | 11,37,77,761 | 4,80,39,274 | 1,84,14,961 | 41,28,714 | 72,86,944 | 10.21 |
| 1900-1901 | 9,23,76,977 | 6,92,70,850 | 12,40,93,236 | 5,49,21,857 | 1,40,16,130 | 49,01,661 | 1,09,14,465 | 11.20 |
| 1901-1902* | 8,04,41,633 | 6,93,30,652 | 13,15,08,916 | 6,16,78,381 | 1,43,36,193 | 43,26,919 | 1,00,09,279 | 11.52 |
| 1902-1903 | 10,31,61,099 | 7,53,36,849 | 14,46,26,777 | 6,91,59,923 | 1,66,14,591 | 48,22,673 | 1,17,91,921 | 11.99 |
| 1903-1904 | 10,69,07,947 | 8,03,36,374 | 15,82,78,896 | 7,79,42,625 | 1,86,78,691 | 67,18,971 | 1,28,59,720 | 12.02 |
| 1904-1905 | 10,87,98,340 | 8,44,56,907 | 17,16,51,245 | 8,71,04,383 | 1,96,10,593 | 62,38,247 | 1,33,72,346 | 12.29 |
| 1905-1906 | 11,01,51,710 | 8,86,86,692 | 18,37,47,593 | 9,51,11,106 | 1,97,86,598 | 66,90,266 | 1,30,96,332 | 12.66 |
| 1906-1907 | 11,11,16,660 | 9,23,04,047 | 19,79,51,511 | 10,66,47,764 | 2,21,75,597 | 69,78,897 | 1,51,97,700 | 13.68 |
| 1907-1908 | 11,23,53,171 | 9,69,91,870 | 21,10,52,103 | 11,50,70,283 | 2,02,78,690 | 71,79,407 | 1,31,00,282 | 11.64 |
| 1908-1909 | 11,28,02,325 | 9,96,57,325 | 22,48,90,491 | 12,62,23,079 | 2,11,00,012 | 72,71,714 | 1,38,28,298 | 12.26 |
| 1909-1910 | 11,33,18,773 | 10,33,10,741 | 23,93,61,134 | 13,60,41,393 | 2,23,90,978 | 79,19,246 | 1,44,71,732 | 12.78 |
| 1910-1911 | 11,43,81,721 | 10,70,28,693 | 25,49,76,785 | 14,79,47,602 | 2,34,16,482 | 78,02,291 | 1,56,14,651 | 13.86 |
| 1911-1912 | 11,62,22,814 | 11,03,11,160 | 27,37,29,768 | 16,29,18,690 | 2,71,10,441 | 83,56,458 | 1,87,53,083 | 16.18 |
| 1912-1913 | 14,62,99,761 | 11,86,74,357 | 29,78,41,169 | 17,91,66,812 | 3,27,93,830 | 86,51,920 | 2,41,41,910 | 16.49 |
| 1913-1914 | 10,77,57,910 | 12,63,59,785 | 32,37,69,670 | 19,84,18,886 | 3,47,99,517 | 68,11,016 | 2,80,08,501 | 15.46 |
| 1914-1915 | 17,17,13,716 | 13,11,09,094 | 34,00,07,666 | 21,79,01,592 | 3,46,62,415 | 93,24,419 | 2,53,37,996 | 14.70 |
| 1915-1916 | 21,69,61,484 | 14,40,61,231 | 37,26,35,954 | 22,80,04,073 | 3,45,59,804 | 1,09,81,516 | 2,36,78,288 | 10.90 |
| 1916-1917 | 22,06,16,193 | 15,10,65,128 | 40,13,37,305 | 25,02,62,267 | 3,96,81,912 | 1,60,70,471 | 2,86,61,441 | 12.99 |

* Excludes the figures relating to the Swat River Canal, which now belongs to the North-West Frontier Province. The figures up to 1900-1901 include the figures of that canal.
The gross revenue in column 6 is that actually collected during the year and differs from the revenue as assessed on the area irrigated in the year.

PUNJAB CANALS, MAJOR WORKS.

| Yr. or 1 | Capital outlay, Direct and Indirect, to end of year. | Interest charges to end of year. | Net revenue to end of year. | Accumulated profits to end of year (column 4— column 3). | FOR THE YEAR. | | | |
|-------------|--|--|-----------------------------------|--|-------------------|---------------------|-----------------|---------------------------|
| | | | | | Gross revenue. | Working expense. | Net revenue. | Percentage on capital. |
| | | | | | Rs. | Rs. | Rs. | Rs. |
| 1887-1888 | 5,78,26,823 | 8,18,40,764 | 5,09,35,681 | 1,80,88,697 | 40,06,023 | 17,01,248 | 23,04,875 | 3.99 |
| 1888-1889 | 6,80,48,409 | 8,40,74,453 | 5,33,37,028 | 1,02,53,180 | 43,64,004 | 19,72,887 | 23,92,007 | 4.08 |
| 1889-1890 | 6,00,98,478 | 8,38,40,808 | 5,61,80,320 | 1,38,80,512 | 49,05,797 | 21,14,115 | 28,52,882 | 4.74 |
| 1890-1891 | 6,24,71,561 | 8,86,93,767 | 5,93,37,074 | 2,11,43,307 | 58,80,440 | 21,75,580 | 30,50,754 | 5.35 |
| 1891-1892 | 6,70,01,026 | 4,11,74,523 | 0,86,20,120 | 2,24,51,093 | 50,40,090 | 22,51,038 | 37,69,052 | 5.95 |
| 1892-1893 | 6,97,92,824 | 4,37,98,007 | 0,78,83,641 | 2,42,84,547 | 68,08,140 | 24,51,081 | 43,57,518 | 6.24 |
| 1893-1894 | 7,34,89,870 | 4,05,48,772 | 7,08,89,481 | 4,43,40,719 | 53,50,977 | 24,45,050 | 29,05,847 | 8.95 |
| 1894-1895 | 7,84,95,573 | 4,04,20,432 | 7,43,04,493 | 2,47,75,091 | 59,05,551 | 20,50,540 | 38,55,002 | 4.83 |
| 1895-1896 | 8,02,57,097 | 5,24,41,565 | 7,87,70,591 | 2,63,35,020 | 70,08,251 | 28,40,474 | 42,57,780 | 5.31 |
| 1896-1897 | 8,41,00,265 | 5,50,01,210 | 8,86,34,083 | 3,10,32,817 | 1,09,44,443 | 30,37,005 | 78,57,443 | 9.34 |
| 1897-1898 | 8,70,10,865 | 5,85,93,103 | 9,50,50,225 | 3,07,44,053 | 1,21,38,410 | 31,86,227 | 90,02,192 | 10.85 |
| 1898-1899 | 8,04,16,531 | 6,22,52,041 | 10,44,91,814 | 4,22,00,178 | 1,24,07,093 | 35,51,505 | 89,55,588 | 9.93 |
| 1899-1900 | 9,09,47,210 | 6,57,40,487 | 11,37,77,751 | 4,80,28,274 | 1,84,14,801 | 41,28,714 | 82,85,914 | 10.21 |
| 1900-1901 | 9,23,75,077 | 9,92,70,850 | 12,40,93,240 | 5,48,21,837 | 1,40,10,130 | 43,01,651 | 1,09,14,485 | 11.20 |
| 1901-1902* | 8,04,41,638 | 9,93,30,552 | 13,15,08,018 | 0,16,78,804 | 1,10,35,193 | 43,26,910 | 1,08,03,279 | 11.52 |
| 1902-1903 | 10,31,91,088 | 7,53,30,810 | 14,45,26,777 | 6,91,89,028 | 1,06,14,594 | 48,22,673 | 1,17,91,021 | 11.39 |
| 1903-1904 | 10,60,07,047 | 8,08,36,874 | 15,32,78,890 | 7,79,42,525 | 1,85,78,691 | 57,13,071 | 1,28,65,020 | 12.02 |
| 1904-1905 | 10,57,83,310 | 8,44,50,997 | 17,16,51,246 | 8,71,94,883 | 1,95,10,598 | 62,33,247 | 1,33,72,345 | 12.29 |
| 1905-1906 | 11,01,51,710 | 8,56,06,802 | 19,37,47,768 | 9,51,11,100 | 1,83,30,508 | 95,90,255 | 1,17,40,802 | 10.55 |
| 1906-1907 | 11,11,10,550 | 9,23,04,047 | 19,79,51,511 | 10,50,47,764 | 2,21,75,707 | 69,78,807 | 1,51,97,700 | 13.08 |
| 1907-1908 | 11,28,83,171 | 9,59,41,870 | 21,10,52,103 | 11,50,70,288 | 2,02,79,690 | 71,79,407 | 1,31,00,292 | 11.64 |
| 1908-1909 | 11,28,02,325 | 9,90,57,325 | 22,48,80,401 | 12,52,23,070 | 2,11,00,012 | 72,71,714 | 1,38,28,299 | 12.20 |
| 1909-1910 | 11,38,18,773 | 10,38,10,741 | 23,93,01,131 | 13,60,41,393 | 2,28,99,978 | 79,19,245 | 1,44,80,738 | 12.78 |
| 1910-1911 | 11,43,81,721 | 10,70,28,093 | 25,40,76,785 | 14,79,47,592 | 2,31,10,492 | 78,02,291 | 1,50,14,051 | 13.86 |
| 1911-1912 | 11,62,22,814 | 11,09,11,109 | 27,37,29,768 | 16,29,18,590 | 2,71,10,441 | 83,56,458 | 1,87,53,983 | 18.18 |
| 1912-1913 | 14,62,99,781 | 11,86,74,357 | 29,78,41,109 | 17,01,00,812 | 3,27,93,830 | 80,81,020 | 2,41,11,401 | 18.48 |
| 1913-1914 | 10,77,87,010 | 12,53,50,785 | 32,37,00,070 | 10,84,18,885 | 8,47,39,517 | 68,11,010 | 2,59,28,501 | 15.45 |
| 1914-1915 | 17,17,13,716 | 13,11,06,094 | 34,90,07,095 | 21,79,01,592 | 3,45,62,415 | 93,24,449 | 2,52,37,995 | 14.70 |
| 1915-1916 | 21,69,51,484 | 14,40,01,331 | 37,20,05,954 | 23,80,04,073 | 3,45,59,804 | 1,69,81,516 | 2,36,53,298 | 10.90 |
| 1916-1917 | 22,09,10,193 | 15,10,05,128 | 40,13,27,395 | 25,02,62,267 | 3,98,31,912 | 1,69,70,471 | 2,80,01,441 | 12.99 |

* Excludes the figures relating to the Beas River Canal, which now belongs to the North-West Frontier Province. The figures up to 1909-1901 include the figures of that canal.

The gross revenue in column 6 is that actually collected during the year and differs from the revenue as assessed on the men irrigated in the year.

GOVERNMENT OF THE PUNJAB.
PUBLIC WORKS DEPARTMENT.

Irrigation Branch.

No. 1264-R. I.

The 20th December 1917.

Resolution by His Honour the Lieutenant-Governor of the Punjab and its Dependencies.

READ —

Administration Report by the Chief Engineer, Irrigation Works, Punjab, of the Canals in the Punjab for the year 1916-17.

Capital Outlay.

DURING the year under report the expenditure (direct and indirect) on canals in operation classed as Productive or Major Irrigation Works, was Rs. 36,80,096 (Imperial Rs. 36,64,709 and Contribution Rs. 15,387), bringing the total outlay to date to Rs. 23,60,93,960, including Rs. 1,54,77,767 contributed by Native States.

Of the Imperial expenditure during the year the sum of Rs. 31,21,690 was expended on the construction and completion of the Triple Canal system. On the other canals the expenditure was, for reasons of financial stringency, kept very low with the exception of the Lower Chenab Canal, the total expenditure on which was Rs. 5,58,238. This was spent chiefly on the much-needed work of raising the Khanki Weir, to improve control of the river Chenab, and on the Palkhu Spur for the same purpose.

The Upper Bari Doab Canal and the Lower Jhelum Canal showed a credit balance, due to suspense transactions (stock issues to works) and receipts on Capital account, which exceeded the actual expenditure on these canals by Rs. 1,55,923 and Rs. 32,594, respectively.

On canals not classed as Productive, or Minor Works for which Capital and Revenue accounts are kept, there was no expenditure during the year. The up-to-date expenditure on these canals was, therefore, the same as in the previous year, *vis.*, Rs. 8,77,485, including Rs. 2,85,442 contributed by the Bikaner State.

Nature of Seasons.

3. *Kharif 1916.*—The monsoon of 1915 was exceptionally short, and the winter rains of 1915-16 failed almost completely, the drought continuing till June 1916. The result was very low rivers, short supplies in all the canals, and late opening of the Inundation Canals. Early in June the rains broke, and in July and August the rainfall was widespread and plentiful. There was a short break in September, and the monsoon of 1916 ended early in October. A marked feature of the season was that the rainfall was good—in parts excessive—in the Punjab plains, but very moderate in the Himalayas. There was some local damage to crops, due to excessive rainfall. The rivers were remarkably free from high floods, and the higher lands on the Inundation Canals suffered from lack of inundation. The shortage of supplies at sowing time caused a serious contraction in the area under cotton, while the scarcity of fodder led to a great increase in fodder crops. The outturn of food crops except rice was poor owing to excessive late rains in October, but sugar-cane and cotton, on the whole, did well.

Rabi 1916-17.—The excellent monsoon rainfall of 1916, and the heavy rains in the beginning of October, were most favourable for the sowing of the *Rabi*. Unfortunately, however, the winter rains again failed, the season became abnormally dry, and the 'rivers' fell so low that the Jhelum, the Chenab and the Ravi rivers had the lowest supplies on record. The low rivers were probably a direct consequence of the light monsoon in the mid-Himalayas and the subsequent poor snowfall.

The demand for water was very keen, and though it could not be fully met, the small supplies available were distributed to the best effect and the canals again saved the province from very severe scarcity. The general effect on the wheat crop of deficient rain and restricted canal supplies was that, though the outturn of grain was nearly normal, the outturn of 'bhusa' was short.

The grain was of excellent quality, but was much damaged by the untimely rain and hail which fell in April and May, when the grain was ripening or being harvested, necessitating the grant of special remissions under Rule 20 (III) of the Rules under the Canal Act, VIII of 1878.

Area irrigated, etc.

4. The areas irrigated and matured by works of all kinds compare as follows with the corresponding figures for the two previous triennia and for the year 1915-16 :—

| Particulars. | AVERAGE OF THE 3 YEARS ENDING | | During 1915-16. | During 1916-17. |
|---------------------------------|-------------------------------|-----------|-----------------|-----------------|
| | 1912-13. | 1915-16. | | |
| | Acres. | Acres. | Acres. | Acres. |
| <i>Imperial and Provincial.</i> | | | | |
| Area irrigated | 7,510,770 | 8,146,997 | 8,237,886 | 8,954,131 |
| Area matured | 6,932,371 | 7,779,310 | 7,805,703 | 8,351,660 |
| <i>Native States.</i> | | | | |
| Area irrigated | 518,950 | 578,775 | 646,925 | 625,693 |
| Area matured | 512,958 | 572,716 | 613,234 | 621,761 |

Under Imperial and Provincial the area irrigated and area matured exceeded by 716,245 acres and 548,957 acres, respectively, the figures of 1915-16; and by 807,134 acres and 574,820 acres, the average figures of the previous triennium. The increase was due mainly to the expansion of irrigation on the Triple Canal system, and to the very good monsoon rainfall which helped also in increasing the area under irrigation on other canals. Of the Triple Canals the Upper Chenab increased its irrigation from 325,000 acres to 437,000 acres, the Lower Bari Doab Canal from 288,000 to 515,000 acres. These figures indicate very satisfactory progress, but the Upper Jhelum which ran for the first time irrigated only 118,000 acres.

Excluding the Triple Canal system, the total increase on all other canals was 254,683 acres and 271,602 acres, respectively, over the figures of the areas irrigated and matured in the previous year: a very satisfactory result in a year during the greater part of which the supplies were unusually short. The success that attended the operations of the Inundation Canals except the Indus system is a matter of special congratulation.

The reason for the shortage on the Triplo Canal system, as a whole, viz., 1,070,018 acres against a forecast of 1,513,367 acres, was that the Upper

Jhelum Canal, on which the working of the Upper Chenab Canal and the Lower Bari Doab Canal is dependent, was opened a year late, and was not able, owing to the newness of its banks, to carry the supply required. The supply in this new canal (Upper Jhelum Canal) is being raised steadily and cautiously, and it is hoped that the forecast will be realized within a few years. The Lower Jhelum and Lower Chenab reports show separately areas irrigated in old and new villages, and the Lieutenant-Governor considers that similar information should be given for all the canals irrigating newly colonised areas.

5. The area on which irrigation charges were remitted was 608,413 acres against 435,824 acres in the previous year. But from these figures must be deducted 175,718 acres and 40,987 acres, respectively, granted remissions under Tenancy rules mostly on the Lower Bari Doab Canal, not for failure of crops, but as part of the terms of colonization. Thus the area of crops that failed amounted to only 428,910 acres, as compared with 395,526 acres in the previous year. *The proportion of the area that failed to the area irrigated was about the same in both years, viz., 4.5 per cent.* About fifty per cent. of the failure was due to flooding by rain, short supplies in the rivers and hail. Other kinds of remissions were normal.

Considering the unusually low supplies in the river and the failure of the winter rains the results have been much better than might have been anticipated.

Financial results.

6. The financial results of the year under review are based on the revenue assessed and collected on the areas irrigated in Rabi 1915-16 and Kharif 1916. The gross receipts from works of all kinds compare as follows with the figures for the year 1915-16 and the two previous triennial periods ending 1912-13 and 1915-16:—

| Particulars. | AVERAGE OF THE THREE YEARS ENDING | | During 1915-16. | During 1916-17. |
|---------------------------------|--------------------------------------|-------------|-----------------|-----------------|
| | 1912-13. | 1915-16. | | |
| | Rs. | Rs. | Rs. | Rs. |
| <i>Imperial and Provincial.</i> | | | | |
| Major Works | 2,77,73,571 | 3,46,30,559 | 8,45,89,804 | 8,90,31,912 |
| Minor Works | 17,11,218 | 19,10,180 | 18,86,557 | 20,09,978 |
| Total | 2,95,14,789 | 3,05,40,769 | 8,04,76,361 | 4,10,41,890 |
| <i>Native States.</i> | | | | |
| Major Works | 20,85,791 | 24,47,259 | 31,88,303 | 27,96,094 |
| Minor Works | 23 | 2 | 1 | ... |
| Total | 20,85,814 | 24,47,261 | 31,88,304 | 27,96,094 |

The gross receipts under Imperial and Provincial are the highest on record, being about 50 lakhs better than the highest previous record. Both the Major and Minor Works contribute to these excellent results. The amount

collected on the Triple Canal system was Rs. 36,12,074, including Rs. 4,57,796 on account of indirect receipts representing chiefly the interest at 4 per cent. on the sale-proceeds of the Government waste lands on the Upper Chenab and Lower Bari Doab Canals and including only a small amount for land revenue and malikana. The question of indirect credit on these new canals is under consideration. With reference to the remarks in paragraph 7 of the report on the Ghaggar Canals, which are still shown as worked at a loss, the Lieutenant-Governor would be glad if the Chief Engineer should examine the system of credits with the Financial Commissioner.

The working expenses for the year are compared below with the similar figures of the annual averages of the two previous trienna and of the year 1915-16 :—

| Particulars. | AVERAGE OF THE TRIENNIUM ENDING | | During 1915-16 | During 1916-17. |
|--------------------------|------------------------------------|-------------|-------------------|--------------------|
| | 1912-13. | 1915-16. | | |
| IMPERIAL AND PROVINCIAL. | | | | |
| Major Works | Rs. | Rs. | Rs. | Rs. |
| Major Works | 82,60,228 | 96,88,991 | 1,09,31,516 | 1,09,70,471 |
| Minor Works | 10,08,281 | 9,68,083 | 9,47,959 | 8,74,535 |
| Total | 92,68,510 | 1,06,47,077 | 1,18,79,475 | 1,18,45,006 |
| NATIVE STATES. | | | | |
| Major Works | Rs. | Rs. | Rs. | Rs. |
| Major Works | 8,16,829 | 8,93,867 | 9,21,201 | 10,46,700 |
| Minor Works | 3,980 | 7,564 | 4,761 | 8,130 |
| Total | 8,20,814 | 9,01,231 | 9,25,965 | 10,54,830 |

Excluding the three recently constructed canals of the Triple Project, which needed a larger amount for up-keep, the expenditure on Major Works was about normal ; and was incurred chiefly on repairing the damage caused to canal banks by the heavy monsoon, and on the ordinary maintenance and silt clearance.

The expenditure on Minor Works is met out of the ordinary revenue and was restricted to a minimum in accordance with the orders in force regarding retrenchment.

The net revenue for the year compares as follows with that of the previous periods :—

| Particulars. | | | | AVERAGE OF THE TRIENNIUM ENDING | | During 1916-16. | During 1917-18. |
|---------------------------|-----|-----|-----|------------------------------------|-------------|--------------------|--------------------|
| | | | | 1912-13. | 1915-16. | | |
| IMPERIAL AND PROVINCIAL. | | | | Rs. | Rs. | Rs. | Rs. |
| Major Works ... | ... | ... | ... | 1,91,93,345 | 2,49,41,595 | 2,36,58,288 | 2,86,01,441 |
| Percentage on Capital ... | ... | ... | ... | 13 32 | 11 50 | 10 90 | 12 90 |
| Minor Works ... | ... | ... | ... | 7,31,931 | 9,51,497 | 9,38,598 | 11,85,393 |
| Total ... | | | | 2,02,28,270 | 2,68,93,092 | 2,45,96,886 | 2,97,96,834 |
| NATIVE STATES. | | | | | | | |
| Major Works ... | ... | ... | ... | 12,18,982 | 15,53,792 | 15,64,103 | 17,49,391 |
| Percentage on Capital ... | ... | ... | ... | 7 97 | 10 05 | 10 12 | 11 30 |
| Minor Works ... | ... | ... | ... | —3,963 | —7,602 | —4,763 | —8,130 |
| Total ... | | | | 12,14,999 | 15,46,090 | 15,59,339 | 17,41,264 |

On the Major Irrigation Works the net revenue earned showed an increase of about Rs. 50 lakhs over the figures of the previous year. Of this Rs. 17.57 lakhs were contributed by the new canals of the Triple Project, which showed a deficit in the previous year. The increase on the other canals was attributable to the favourable monsoon rainfall in the *kharif* crop of the year under report. The *rabi* crop of the year 1915-16, the demand for which was collected during the year, also yielded good financial results as the abnormal drought created an unusually keen demand for the moderate supplies available.

The interest charges for the year amounted to Rs. 70,03,847 and the net profit, after defraying interest charges, was Rs. 2,16,57,591 or 9.82 per cent. on the Capital outlay to date. In the previous year the corresponding figures were Rs. 1,64,21,265 and 7.56 respectively.

The Minor Works have also done well and show an increase of nearly 2 lakhs over the figures of the previous year.

The percentage of net revenue on Capital outlay on the principal canals was as follows:—

| Canal. | Excluding interest charges. | Including interest charges. |
|---------------------------------------|-----------------------------|-----------------------------|
| Western Jumna | 10 15 | 7 00 |
| Sirhind (Imperial) | 11 03 | 8 49 |
| Upper Bari Doab | 17 35 | 14 17 |
| Lower Bari Doab | 1 55 | —1 62 |
| Upper Chenab | 4 89 | 1 71 |
| Lower Chenab | 43 6 | 40 42 |
| Upper Jhelum | —1 27 | —4 45 |
| Lower Jhelum | 23 56 | 20 35 |
| Upper Sutlej Inundation Canals | 9 19 | 6 03 |
| Sidhnai | 32 25 | 29 03 |
| Indus Inundation Canals | 4 35 | 1 14 |

With the exception of the Upper Jhelum Canal, Upper Sutlej Inundation Canals and Sidhnai Canals, all the other Major Irrigation Works as detailed above showed improvement over the figures of the previous year.

The collections on the Upper Jhelum Canal were for *kharif* only, there was no *rabi* crop in 1915-16. The tabular statement above is unfair to the Upper Jhelum Canal, as most of its Capital Expenditure is for the benefit of the Upper Chenab Canal and Lower Bari Doab Canal, and not for local irrigation. For proper comparison with the older canals the three canals should be taken together. For the Triple Canal system as a whole, the net revenue percentages are 1.49 excluding interest charges, and — 1.58 including interest charges. As regards the financial results it has to be borne in mind that no less than one-third of the total income, or 130 lakhs, is made up of indirect receipts on account of land revenue due to the canal, water advantage or owner's rate, proceeds of sales of Government lands in the Colonies. These receipts explain the extraordinarily high profits on the Lower Chenab, Lower Jhelum and Sidhnai Canals on which most of the land irrigated belonged to Government. They also swell the profits for the Punjab Canals, as a whole, which, if indirect receipts were excluded, would amount to only 4 per cent. on the Capital outlay.

General Remarks.

7. This was the first complete year of irrigation from the Upper Jhelum Canal which was opened for irrigation in December 1915. Thus all three canals of the Triple Project were in operation during the year. As the river supplies were unusually low, the question of an equitable distribution of the supply of the three Rivers—Chenab, Jhelum and Ravi—amongst the five canals dependent thereon (Upper and Lower Jhelum, Upper and Lower Chenab and the Lower Bari Doab) had to be considered. A programme of rotational canal turns was arranged by the Chief Engineer, after consultation with the Superintending Engineers of these canals; and the distribution effected thereby proved, on the whole, fair. Experience has indicated the need for certain modifications which are being tried. Certain difficulties in adjusting the conflicting claims of the five canals are inevitable in seasons of short supply, and the Lieutenant-Governor will be glad if in future reports some reference is made to any difficulties which may arise, and the manner in which they have been solved. Our important consideration is to give as timely notice as possible to the officers controlling each system and through them to the irrigators of any reductions in the supply or of contemplated rotational working.

8. Another feature of the year was that the construction estimate of the Triple Project was closed on the 31st March 1917 with an expenditure of Rs. 10,10,66,394 against the estimated amount of Rs. 10,36,81,985, showing a saving of Rs. 26,15,591.

9. The length of channels in operation at the end of March 1917 was 19,267, viz. 4,390 miles of main and branch canals and 14,868 miles of distributaries. Sixty-seven miles of canal and branches and 394 miles of distributaries were opened for the first time for irrigation during the year.

10. The estimated value of crops raised on all canals for the year under review is Rs. 32,09,18,736 as compared with Rs. 27,50,82,336 for the previous year. These figures represent averages of Rs. 35.75 and Rs. 32.4, respectively, per acre matured. The calculations are based on the outturn and prices given in the seasons and crops report for the year 1916-17, and the Lieutenant-Governor believes the estimates to be studiously moderate.

11. The growing importance of irrigation to the people and to Government and the steadily increased profits it secures to both are the strongest arguments for extending the irrigation system wherever conditions are favourable, and several promising projects are now under the consideration of Government:—

- (1) The project estimate for the construction of a barrage across the River Jhelum, at its exit from the Woolar Lake, which was prepared by Mr. R. E. Purves, C.I.E., late Chief Engineer, Irrigation Works, Punjab, in the summer of 1915, and which was noticed in the review for the previous year, is now being further considered in connection with its financial details. The object of this scheme is to store water in the Woolar Lake during the monsoon period for use in the Punjab canals during the rabi season. The Lieutenant-Governor has recently had an opportunity of discussing the project on the spot with Mr. Woods and the Kashmir Darbar and their officials and he trusts it is now on a fair way towards realization.
- (2) In accordance with the orders received from the Government of India in 1915-16, the project estimate in connection with the utilization of the surplus waters of the Sutlej River below its confluence with the Beas, was modified.

This project is intended—

- (i) to maintain the supply of water to the area now served by existing Inundation Canals, and
- (ii) to utilize the balance in the British and Native States territories to the best advantage.

The project is estimated to cost Rs. 9,90,44,075 with an annual income in the 10th year after completion, of Rs. 97,39,365 being a net return of 9.8 per cent. on the cost

- (3) Another very promising scheme now being worked up involves the construction of a dam at Bhakra on the Sutlej River about 40 miles above the site of the head works of the Sirhind Canal to head up to a depth of 360 feet above river bed. It is estimated that this dam will impound about two-and-a-half million foot acres during the summer.
- (4) In connection with the Haveli Project noticed in the last year's review more information, in detail, is being collected regarding available cold weather supplies and the effect at Haveli of a dry river below the Rasul Weir. The project is estimated to cost about 165½ lakhs of rupees and to bring in a return of about 6 per cent. on the capital cost.
- (5) Another important scheme which is being elaborated is the Sindh Sagar Project. Preliminary surveys for which were started in November 1915. This project is intended to irrigate about 2 million acres of land in the Sindh Sagar Doab, from a canal taking out on the left bank of the Indus near Mari and opposite Kalabagh. The scheme was partly investigated in 1912, but was put aside as more promising projects were then considered possible. About 30 per cent. of this country lying in the centre of the Doab is covered with sand hills. Both the Lieutenant-Governor and the Financial Commissioner (Mr. Pagan) toured over the Doab in different directions last spring and the conclusion provisionally arrived at is that excluding the very sandy portion of the Central Doab south of the Jhang-Bhakkar Road, there is an ample area of good land, much of it Government waste, to justify the construction of the canal. Accordingly, a rectangular survey by the Survey Department has been put in hand as a basis for a detailed soil survey to be undertaken later by the Revenue Staff. A large amount of survey work has been carried out by the Irrigation Department and information collected by the Revenue Department at various times during the last 44 years and this can be utilized in working up the rough project.

12. The Lieutenant-Governor is very pleased to see that the question of the risk of water-logging due to seepage from canals on the necessity of which he has so often insisted, is not being overlooked. The Hafizabad tract has been much improved by surface drainage, and it is particularly satisfactory to learn that the abnormal monsoon rains of 1916-17, have not arrested the improvement. Certain reaches of the Main Line and Jhang Branch of the Lower Chenab Canal, were lined with water-proof material, but it is difficult to draw definite conclusions as to the value of the work done, in the absence of precise means of measuring its effect. On the Upper Chenab Canal the local drainages have been surveyed, and proposals for improving them to prevent water-logging are under consideration. Around Amritsar tube-walls

are increasing in number and the operating area of the Hydro-Electric pumping scheme is gradually extending, and its effect on this water-logged tract should soon be noticeable.

13. Paragraph 5 of the report gives details of the punishments, Judicial and Departmental, inflicted for misconduct and inefficiency. There is no Department of Government which is brought into closer relations with the people than the Irrigation Branch and on the honest and efficient discharge of their duties by the great body of officials whom the Department controls, the credit of the administration very largely depends. The responsibility of the Superior Officers of the Department for checking abuses, preventing partiality or exactions on the part of the subordinate establishment is a very heavy one, and the Lieutenant-Governor is glad to observe that this all-important matter is now receiving the attention it merits.

14. The posts of Chief Engineers were held during the year under review by—

| | | | <i>From</i> | | <i>To</i> |
|-------------------|-----|-----|-------------|-----|-------------|
| Mr. W. F. Holms | ... | ... | 1-4-1916 | ... | 31-3-1917. |
| Mr. T. R. J. Ward | ... | ... | 1-4-1916 | ... | 30-12-1916. |
| Mr. F. W. Woods | ... | ... | 31-12-1916 | ... | 31-3-1917. |

The Lieutenant-Governor recorded his appreciation of Mr. Ward's services in his review of the report for the previous year. He desires to thank Messrs. Holms and Woods for their efficient administration and the officers of the Department—which has been seriously depleted by the number of officers who have volunteered for Military service or Engineering and other work in connection with the War—for their admirable devotion to duty in a year of great strain and the splendid results they have achieved for the Government and the people of the Province.

By order of His Honour the Lieutenant-Governor,

W. F. HOLMS,

Secretary to Government, Punjab.

ADMINISTRATION REPORT

OF THE

CANALS IN THE PUNJAB

FOR THE YEAR

1916-17.

GENERAL.

1. The direct receipts and expenditure of the Irrigation Department during the year were as follows :—

| CLASS OF WORKS. | | Direct Receipts. | DIRECT EXPENDITURE. | | |
|--|---------------|------------------|---------------------|-------------------|-------------|
| | | | Capital. | Working expenses. | Total. |
| | | Rs. | Rs. | Rs. | Rs. |
| Major Irrigation Works. | Imperial | 2,77,00,618 | 34,55,730 | 1,03,37,710 | 1,27,93,470 |
| | Contributions | 73,562 | 15,284 | 5,44,543 | 5,59,827 |
| Minor Irrigation Works. | Imperial | 9,57,305 | ... | 7,81,860 | 7,81,860 |
| | Contributions | ... | ... | 3,105 | 3,105 |
| Provincial Canals | ... | 32,492 | ... | 47,085 | 47,085 |
| GRAND TOTAL | | 2,87,04,477 | 34,71,014 | 1,17,14,333 | 1,51,85,317 |
| Average of the three years ending 1915-16. | | 2,52,97,116 | 74,35,028 | 1,05,35,900 | 1,79,70,928 |

*Excludes "refunds of revenue."

2. The indirect revenue credited to the canals on account of Enhanced Land Revenue, etc., amounted to Rs. 1,29,51,275. The average credit on this account of the three previous years amounts to Rs. 1,13,14,514.

3. The following table shows the areas irrigated by the several canals in 1916-17 as compared with the averages of the previous triennium :—

| Names of canals. | | | | | Average of the three years ending 1915-16. | 1916-17. |
|--|-----|----------------------------------|-----|-----|--|-----------|
| Major Irrigation Works. | | | | | Acres. | Acres. |
| Western Jamma Canal | ... | { Imperial ... | ... | ... | 759,138 | 748,768 |
| | | { Patiala State | ... | ... | 67,550 | 79,694 |
| Sirhind Canal... | ... | { Imperial ... | ... | ... | 879,390 | 891,781 |
| | | { Patiala, Nabha and Jind States | ... | ... | 503,202 | 533,959 |
| Upper Bari Doab Canal | ... | ... | ... | ... | 1,153,453 | 1,201,297 |
| Lower Bari Doab Canal | ... | ... | ... | ... | 182,025 | 514,936 |
| Upper Chenab Canal | ... | ... | ... | ... | 233,685 | 437,477 |
| Lower Chenab Canal | ... | ... | ... | ... | 2,280,630 | 2,286,729 |
| Upper Jhelum Canal | ... | ... | ... | ... | ... | 117,605 |
| Lower Jhelum Canal | ... | ... | ... | ... | 826,399 | 804,761 |
| Upper Sutlej Canals... | ... | ... | ... | ... | 338,238 | 313,151 |
| Sidhni Canal | ... | ... | ... | ... | 255,505 | 298,556 |
| Indus Canals | ... | ... | ... | ... | 235,079 | 265,168 |
| Total Major Irrigation Works. | | { Imperial | ... | ... | 7,168,542 | 7,880,214 |
| | | { Native States | ... | ... | 570,752 | 618,653 |
| Minor Irrigation Works. | | | | | | |
| Shahpur Inundation Canals | ... | { Imperial | ... | ... | 38,750 | 46,769 |
| | | { Provincial | ... | ... | 26,768 | 31,404 |
| Ghaggar Inundation Canals | ... | { Imperial | ... | ... | 19,707 | 28,327 |
| | | { Bikaner State... | ... | ... | 6,023 | 12,040 |
| Lower Sutlej Inundation Canals (including Hajiwah Canal) | ... | ... | ... | ... | 313,586 | 363,884 |
| Chenab Inundation Canals | ... | ... | ... | ... | 195,606 | 205,075 |
| Murraffargarh Inundation Canals | ... | ... | ... | ... | 377,259 | 398,458 |
| Ravi Inundation Canals (Provincial) | ... | ... | ... | ... | 6,779 | ... |
| Total Minor Irrigation Works. | | { Imperial | ... | ... | 944,908 | 1,042,513 |
| | | { Provincial | ... | ... | 33,547 | 31,404 |
| | | { Native States | ... | ... | 6,023 | 12,040 |
| Total Major and Minor Irrigation Works. | | { Imperial | ... | ... | 8,113,450 | 8,922,727 |
| | | { Provincial | ... | ... | 33,547 | 31,404 |
| | | { Native States | ... | ... | 576,775 | 625,693 |
| GRAND TOTAL | | | | | 8,723,772 | 9,579,824 |

Financial Results.

4. The canals in the Punjab show the following results for 1916-17 :—

I.—CANALS IN OPERATION CLASSED AS PRODUCTIVE.

Major Works.

| | | | | Rs. |
|--|----------------------|-----|-----|--------------|
| Capital expenditure during the year. | Direct charges ... | ... | ... | 34,55,730 |
| | Indirect charges ... | ... | ... | 2,08,979 |
| Total | | | | 36,64,709 |
| The capital invested to end of 1916-17 amounted to | | | | 22,06,16,193 |
| Income from all sources less refunds (Rs. 7,024) ... | | | | 3,96,31,912 |
| Working expenses less refunds (Rs. 7,024) ... | | | | 1,09,70,471 |
| Balance excess revenue being 12.99 per cent. on Rs. 22,06,16,193 | | | | 2,86,61,441 |
| Interest— | | | | |
| | | | | Rs. |
| Total Direct outlay to 31st March 1917 | | | | 21,41,97,441 |
| Less half outlay during 1916-17 | | | | 17,27,865 |
| Mean Capital at charge | | | | 21,24,69,576 |
| Interest on Rs. 21,24,69,576 at 3.2964 per cent. | | | | 70,03,847 |
| Net profit after paying interest in 1916-17 | | | | 2,16,57,594 |
| Ditto ditto 1915-16 | | | | 1,64,21,265 |
| Ditto ditto 1914-15 | | | | 1,94,82,697 |

The earnings of the "9—Major Works" are shown in line 24 of the statement at pages 4 and 5.

II.—IMPERIAL CANALS, MINOR WORKS NOT CLASSED AS PRODUCTIVE.

No capital outlay was incurred during the year on those canals for which Capital and Revenue Accounts are kept, *viz.*, Shahpur Imperial and Ghaggar Canals. The total expenditure on such canals to end of year 1915-16 was, therefore, Rs. 5,92,013, the same as in the previous year.

| | | | | Rs. |
|--|--|--|--|-----------|
| The income from all sources less refunds (Rs. 480) amounted to ... | | | | 19,61,291 |
| Working expenses less refunds (Rs. 480) ... | | | | 8,24,572 |
| Balance profit in 1916-17 | | | | 11,36,719 |
| Ditto 1915-16 | | | | 9,44,305 |
| Ditto 1914-15 | | | | 9,47,214 |

The financial results of each Minor Work are shown in the body of the report.

III.—PROVINCIAL CANALS.

There are only two Provincial Canals in operation, *viz.*, the Shahpur Provincial Canals and the Ravi Inundation Canals.

| | | | | Rs. |
|---|--|--|--|--------|
| The income from all sources less refunds (<i>nil</i>) amounted to ... | | | | 48,687 |
| Working expenses less refunds (<i>nil</i>) ... | | | | 50,013 |
| Balance profit in 1916-17 | | | | —1,326 |
| Ditto 1915-16 | | | | —5,707 |
| Ditto 1914-15 | | | | 26,215 |

5. The total number of dismissals and punishments was 110. Of these 38 were dismissed after departmental enquiry, 5 after judicial enquiry, 7 for serious misconduct, 6 for inefficiency and one for absence without leave. Of the other forms of punishment penal transfers accounted for 24, non-recommendation in rolls 11 and reduction in rank or pay 8. This total does not include disciplinary punishments.

Dismissals and Punishments.

CANALS IN OPERATION CLASSED AS PRODUCTIVE

| PARTICULARS. | | Serial No. | Western Jumna Canal (including Sira Branch). | Sichind Canal (Imperial). | Upper Bari Doab Canal. | Lower Bari Doab Canal. | Upper Chenab Canal. | Lower Chenab Canal. |
|---|-------------------------------|------------|--|---------------------------------|------------------------------|------------------------------|---------------------------|---------------------------|
| 1 | 2 | | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| I.—Capital (direct and indirect) outlay to end of | 1915-16 ... | 1 | 1,76,92,595 | 2,55,56,553 | 2,18,72,497 | 2,10,81,992 | 8,46,01,593 | 3,17,56,780 |
| | 1916-17 ... | 2 | 1,76,93,755 | 2,55,92,813 | 2,18,97,858 | 2,18,74,288 | 8,53,42,184 | 3,23,65,018 |
| II.—Income realized during the year— | | | | | | | | |
| Direct, viz., water rent and miscellaneous receipts. | 1915-16 ... | 3 | 27,75,361 | 31,37,789 | 41,02,676 | 4,32,311 | 9,66,256 | 84,47,760 |
| | 1916-17 ... | 4 | 29,43,410 | 42,20,895 | 45,39,059 | 7,61,960 | 23,08,678 | 87,62,076 |
| Indirect, viz., land revenue due to Irrigation Works, including water-advantage rate. | 1915-16 ... | 5 | 2,30,990 | 89,551 | 5,16,293 | 1,20,086 | 61,077 | 74,71,480 |
| | 1916-17 ... | 6 | 2,08,310 | 1,42,791 | 6,63,875 | 2,02,921 | 2,51,872 | 60,66,027 |
| Total Direct and Indirect | 1915-16 ... | 7 | 30,66,351 | 32,27,340 | 47,18,969 | 5,63,497 | 10,17,333 | 1,59,22,240 |
| | 1916-17 ... | 8 | 31,51,750 | 43,63,676 | 52,08,884 | 9,64,893 | 25,63,550 | 1,68,80,103 |
| III.—Charges (direct and indirect) for the year— | | | | | | | | |
| Maintenance, including Establishment. | 1915-16 ... | 9 | 14,05,414 | 12,38,876 | 13,72,665 | 6,50,986 | 8,33,809 | 32,71,933 |
| | 1916-17 ... | 10 | 13,53,021 | 13,87,160 | 14,19,126 | 6,26,356 | 8,39,284 | 37,19,753 |
| Interest on Capital outlay | 1915-16 ... | 11 | 5,85,685 | 8,44,273 | 7,27,665 | 7,02,171 | 11,49,972 | 10,76,007 |
| | 1916-17 ... | 12 | 5,66,629 | 8,03,114 | 6,96,019 | 6,69,632 | 11,20,619 | 10,31,663 |
| Total | 1915-16 ... | 13 | 19,91,400 | 20,63,191 | 21,00,420 | 13,63,168 | 19,89,693 | 13,45,000 |
| | 1916-17 ... | 14 | 19,12,550 | 21,00,264 | 21,15,176 | 13,20,038 | 19,68,812 | 27,51,751 |
| V.—Profit and Loss— | | | | | | | | |
| (a) Including Interest on Capital outlay. | Amount | 15 | 10,14,951 | 11,44,269 | 2,18,549 | —7,99,669 | —9,63,341 | 1,15,74,210 |
| | | 16 | 12,39,290 | 21,73,412 | 30,98,680 | —3,55,145 | 6,01,738 | 1,39,78,362 |
| Percentage on Capital outlay. | 1915-16 ... | 17 | 5.73 | 4.47 | 11.97 | —3.79 | —2.79 | 36.40 |
| | 1916-17 ... | 18 | 7.60 | 8.39 | 14.17 | —1.62 | 1.71 | 49.42 |
| On Direct income | Amount | 19 | 18,09,817 | 18,98,931 | 27,50,111 | —2,18,474 | —1,22,419 | 51,75,767 |
| | | 20 | 16,87,419 | 22,33,785 | 31,20,693 | 1,85,618 | 14,70,414 | 60,42,293 |
| Percentage on Capital outlay. | 1915-16 ... | 21 | 7.74 | 7.43 | 12.48 | —1.94 | 0.35 | 16.28 |
| | 1916-17 ... | 22 | 8.58 | 11.07 | 14.29 | 0.03 | 4.16 | 18.67 |
| (b) Excluding Interest on Capital outlay. | Amount | 23 | 16,00,937 | 19,86,482 | 33,46,401 | —97,488 | 1,59,625 | 1,23,50,247 |
| | | 24 | 17,96,729 | 29,70,526 | 37,89,738 | 8,38,637 | 17,25,266 | 1,41,10,320 |
| On total income, Direct and Indirect. | Percentage on Capital outlay. | 25 | 9.61 | 7.78 | 16.29 | —0.48 | 0.53 | 39.78 |
| | | 26 | 10.15 | 11.68 | 17.35 | 1.56 | 4.88 | 49.61 |

MAJOR WORKS.

DIFFERENTIAL CANALS, MINOR
WORKS, NOT CLASSED AS
PRODUCTIVE.

PROVINCIAL CANALS.

| Upper Jhelum Canal. | Lower Jhelum Canal. | Upper Valley (including Lower Sohag and Para). | Sidhmal Canal. | Indus Thundeffish Canals. | Total Productive. | Works for which Capital and Revenue Accounts are kept. | Works for which only Revenue Accounts are kept. | Shahpur Provincial Canals. | Ravi Inundation Canals. | Serial No. |
|---------------------------|---------------------------|--|-------------------|---------------------------------|----------------------|--|---|----------------------------------|-------------------------------|------------|
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| 4,27,61,119 | 1,59,85,762 | 16,18,591 | 13,37,061 | 2,73,305 | 21,09,11,444 | 592,013 | ... | ... | ... | 1 |
| 4,38,49,917 | 1,69,83,169 | 16,19,640 | 13,65,497 | 2,82,351 | 22,08,16,193 | 6,92,019 | ... | ... | ... | 2 |
| 6,231 | 15,49,444 | 4,79,046 | 6,23,452 | 1,85,918 | 4,07,97,179 | 91,634 | 7,53,775 | 29,002 | 892 | 3 |
| 83,531 | 20,73,910 | 9,92,226 | 4,69,105 | 2,74,509 | 2,77,00,518 | 1,02,189 | 8,65,309 | 82,492 | ... | 4 |
| ... | 14,72,313 | 2,67,157 | 2,02,329 | 2,50,337 | 1,07,02,133 | 15,107 | 9,45,812 | 6,457 | 893 | 5 |
| ... | 17,61,783 | 2,16,962 | 1,21,311 | 4,73,709 | 1,19,01,294 | 21,672 | 9,69,114 | 12,973 | 3,222 | 6 |
| 6,231 | 41,91,563 | 7,70,103 | 8,23,779 | 4,57,175 | 3,15,99,501 | 1,69,741 | 17,52,157 | 36,339 | 1,270 | 7 |
| 83,631 | 47,08,529 | 6,79,701 | 6,89,769 | 1,24,713 | 3,59,31,912 | 1,37,853 | 18,21,423 | 45,455 | 3,222 | 8 |
| 3,42,150 | 9,17,179 | 4,03,709 | 1,47,711 | 4,11,334 | 1,79,21,116 | 65,900 | 8,16,723 | 40,959 | 2,353 | 9 |
| 6,40,702 | 9,92,062 | 4,41,279 | 1,72,112 | 2,97,773 | 1,69,79,471 | 77,655 | 7,16,017 | 47,609 | 2,101 | 10 |
| 14,11,029 | 1,61,701 | 79,479 | 41,751 | 67,917 | 73,37,21 | ... | ... | ... | ... | 11 |
| 13,91,259 | 1,12,921 | 76,673 | 42,627 | 17,519 | 70,43,447 | ... | ... | ... | ... | 12 |
| 14,11,000 | 11,79,721 | 4,79,160 | 1,91,479 | 6,39,467 | 1,81,75,279 | 8,000 | 8,16,723 | 40,953 | 2,353 | 13 |
| 20,72,755 | 11,79,709 | 4,03,032 | 2,01,755 | 4,91,123 | 1,79,74,318 | 77,655 | 7,16,017 | 47,619 | 2,101 | 14 |
| -17,46,925 | 37,67,273 | 2,67,017 | 7,41,310 | -1,72,622 | 1,71,21,279 | ... | ... | ... | ... | 15 |
| -10,51,421 | 22,41,719 | 1,10,763 | 87,5,114 | 84,145 | 2,10,37,531 | ... | ... | ... | ... | 16 |
| -412 | 17,47 | 1623 | 4616 | -341 | 755 | ... | ... | ... | ... | 17 |
| -445 | 1935 | 649 | 2766 | 144 | 682 | ... | ... | ... | ... | 18 |
| -3,35,316 | 18,31,691 | 69,037 | 4,76,878 | -2,51,530 | 1,28,61,974 | 5,791 | -7,99,192 | -11,651 | -2,001 | 19 |
| -1,67,164 | 19,19,968 | -19,572 | 2,61,353 | -1,43,705 | 1,07,33,147 | 21,611 | 1,01,392 | -15,117 | -3,401 | 20 |
| 079 | 1117 | 231 | 6582 | -376 | 691 | 097 | ... | ... | ... | 21 |
| -127 | 1210 | -267 | 2942 | -482 | 719 | 415 | ... | ... | ... | 22 |
| -3,35,916 | 23,08,924 | 3,30,295 | 6,99,187 | -4,439 | 2,89,54,245 | 20,811 | 6,23,401 | -4,691 | -1,119 | 23 |
| -5,67,104 | 37,51,631 | 1,67,399 | 4,87,737 | 1,29,702 | 2,89,61,441 | 69,213 | 10,77,503 | -2,141 | 818 | 24 |
| 079 | 2970 | 1650 | 5175 | -916 | 1090 | 303 | ... | ... | ... | 25 |
| -127 | 2969 | 910 | 3225 | 436 | 1209 | 1000 | ... | ... | ... | 26 |

Major Irrigation Works.

WESTERN JUMNA CANAL.

(SUPERINTENDING ENGINEER—MR. G. C. LAURIE.)

1. A small expenditure of Rs. 1,220 (Direct and Indirect) was incurred on completing the subordinates' rest-houses at Jaunti and Anta and the rest-house at Anta.

Capital Account.
Kharif 1916.
Rabi 1916-17.

2. The expenditure amounted to Rs. 1,29,520 (Rs. 1,11,182 under "Imperial" and Rs. 18,338 under "Contribution") and was incurred on numerous small works for increasing the efficiency of the canal and in improvements to buildings.

Extensions and Improvements.

3. The expenditure amounted to Rs. 6,17,830 (Rs. 5,92,095 under "Imperial" and Rs. 25,735, under "Contribution"). In addition to this Rs. 19,557 and Rs. 21,676 were spent by the Patiala and Jind States, respectively, on the maintenance of their distributaries. Apart from ordinary repairs and maintenance of channels and buildings, numerous works of improvement were carried out.

Maintenance and Repairs.

The large Badarpur silting reach, 3 miles long and 1,000 feet wide on Main Line, was again successfully worked.

A 3-mile reach of silting tanks was started between Ghogripur and Jani on the Main Branch.

A marginal bund was constructed, about $1\frac{1}{2}$ miles long, on both banks of the Main Canal at its worst reach, to control the supplies and contain them in one channel. Large sums were also spent on clearance of drains recently taken over from the District Boards and on clearance of Dhanaura Escape on the Main Line.

4. (a) Kharif, 1916.—No rain was received in the early part of the season and the river discharge was the lowest on record. There was an enormous demand for filling village tanks and the river supply was quite insufficient to meet the canal indent during April, May and early June. The early arrival of a good monsoon, however, saved the situation which was, otherwise, getting very serious. The cotton crop was lost and dropped from a maximum of 220,330 acres in 1914 to 92,360 acres in 1916. Considerable areas were put down under fodder crops as there had been a fodder famine in the previous cold weather, but the arrival of the early and heavy monsoon enabled most of this to do without irrigation. The Kharif crop, though average on the whole, was nearly a lakh of acres below those obtained in 1913 and 1914.

During the monsoon the river was remarkably free from high floods considering the heavy rainfall.

The highest flood gauge registered was 27.5 feet at Ponta on the 18th June against a maximum recorded flood of 38.5 feet on the 14th August 1903.

(b) Rabi, 1916-17.—There were good rains in September which ensured a large area of rabi sowings. The canal remained in flow for 178 days and was closed for 4 days only in October. The supply was favourable throughout, but there was a keen demand on account of the very large crop and the absence of winter rains. The crop amounted to 480,544 acres, and was the highest on record and was also of good quality.

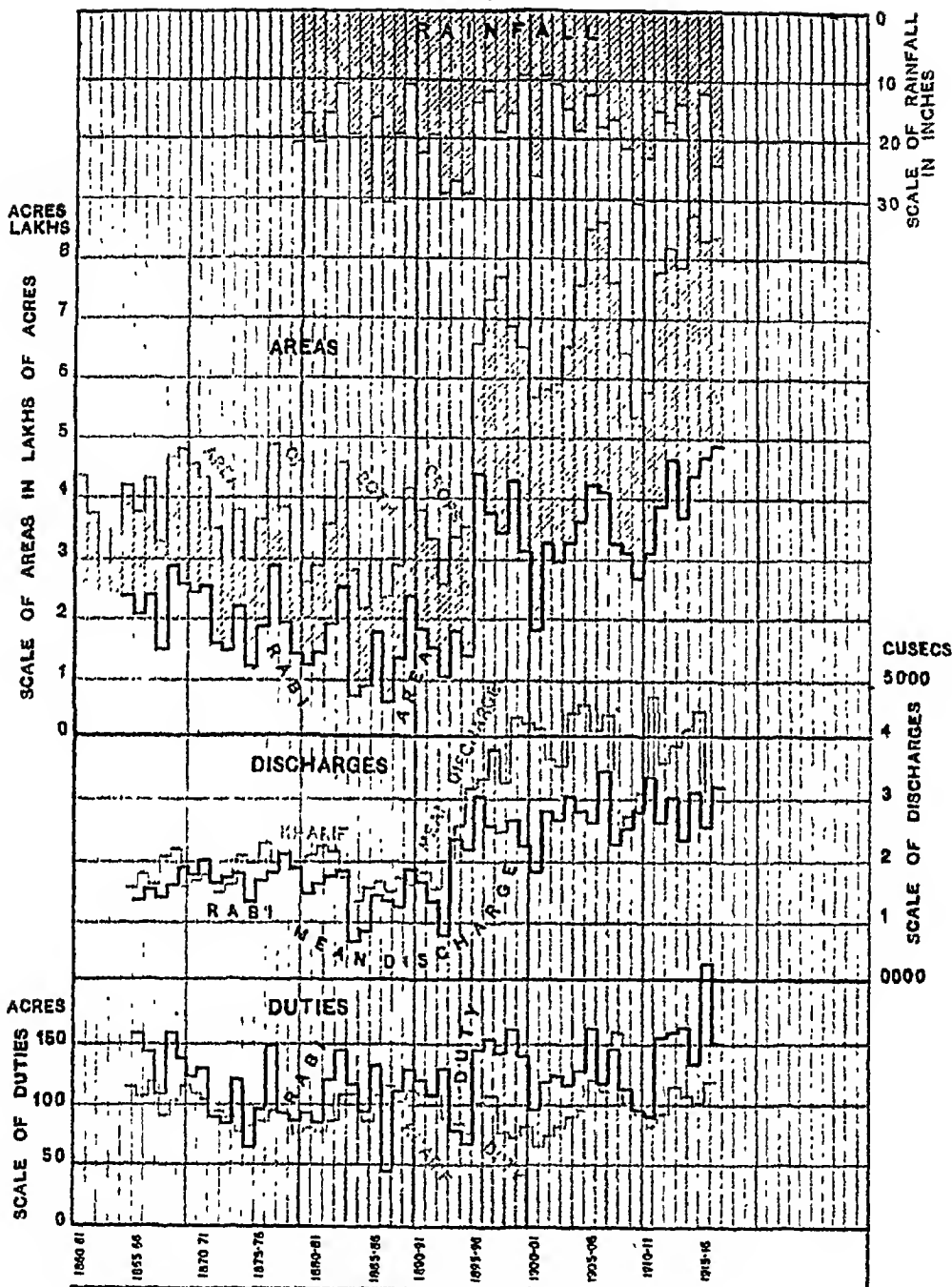
(c) Rainfall.—The following table compares the rainfall during the year with the average of the previous years:—

| Station. | | | | | | 1916-17. | Average. |
|----------|-----|-----|-----|-----|-----|----------|----------|
| | | | | | | Inches. | Inches. |
| Ponta | ... | ... | ... | ... | ... | 69.2 | 57.3 |
| Tajawala | ... | ... | ... | ... | ... | 61.7 | 52.9 |
| Indri | ... | ... | ... | ... | ... | 28.7 | 23.4 |
| Nimak | ... | ... | ... | ... | ... | 26.0 | 23.0 |
| Delhi | ... | ... | ... | ... | ... | 23.3 | 20.7 |
| Karnal | ... | ... | ... | ... | ... | 37.3 | 26.6 |
| Dadupur | ... | ... | ... | ... | ... | 52.3 | 45.3 |
| Hissar | ... | ... | ... | ... | ... | 27.0 | 14.1 |
| Rohtak | ... | ... | ... | ... | ... | 21.2 | 17.7 |

WESTERN JUMNA CANAL.

WORKING RECORD.

1916-17.

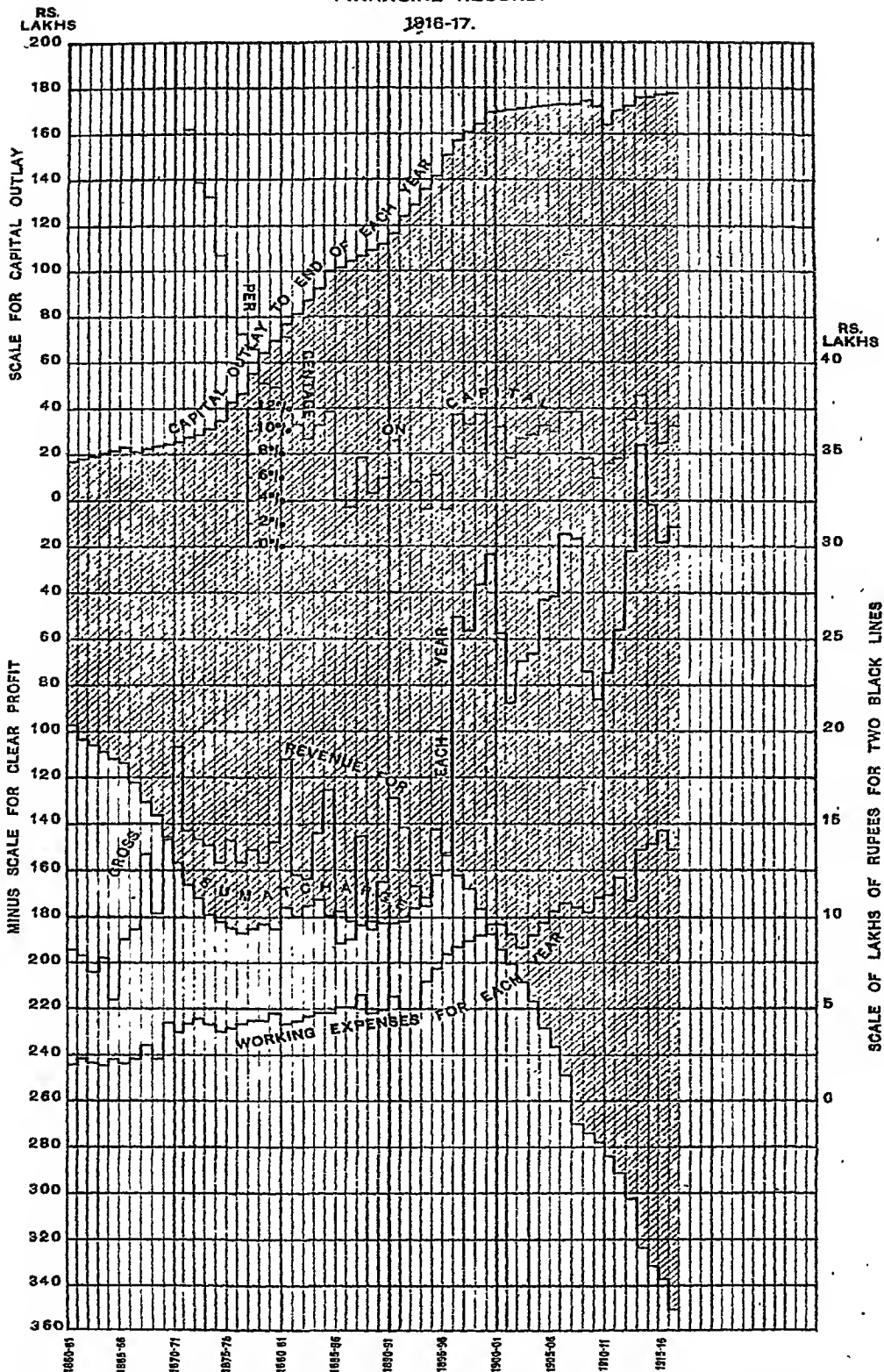


N. B.—The intercepts in the red area show the Kharif acreage each year.
 The areas shown include those done in Patiala State on Sirsa Branch.
 The discharges are as measured at canal head, and are averages utilized for the whole of each crop.
 The duties are derived from the above areas and discharges.

WESTERN JUMNA CANAL.

FINANCIAL RECORD.

1916-17.



N. B.—This diagram does not include figures for Patiala State on Sirsa Branch; it is "Imperial" only.

The intercepts in the blue area are measures of the accumulated clear profits of the scheme; and if measured on the minus scale the readings are clear profits after reimbursing the whole of the capital expenditure.

This canal was taken over in the early half of the 19th century without the expenditure of any capital; there has therefore never been any arrears of interest, and the sum at charge has never been greater than the capital. In 1900-01, it will be seen that the whole capital had been repaid, and about 104 lakhs in addition as clear gain.

No interest on this clear profit has been allowed for, so that the gain is more than shown.

The intercepts between the black lines show the net revenue each year.

The sudden rise in 1896-97 of gross receipts was due to a famine year, but has been continued since owing to large extensions.

5. The following table gives the irrigation effected during the year: also the averages of the two previous triennia:—

Area irrigated,
Kharif, 1916.
Rabi, 1916-17.

| Crop. | | | | | AVERAGE FOR THE THREE YEARS ENDING | | Area irrigated during 1916-17. |
|---------------|-----|-----|-----|-----|---------------------------------------|----------|--------------------------------------|
| | | | | | 1912-13. | 1915-16. | |
| | | | | | Acres. | Acres. | Acres. |
| <i>Kharif</i> | ... | ... | ... | ... | 835,585 | 404,117 | 317,913 |
| <i>Rabi</i> | ... | ... | ... | ... | 392,158 | 422,571 | 480,544 |
| Total | | | | | 727,743 | 826,688 | 828,157 |

The area irrigated shows a most satisfactory improvement when compared with that of previous years, and this is due to recent improvements in channels. The area irrigated during *rabi* was the highest on record and exceeded the previous highest in 1912-13 by about 9,000 acres, a most satisfactory result.

The decrease in the *kharif* was due to the unprecedented low supply in the river during the period for sowing.

6. The receipts amounted to Rs. 73,586 and maintenance charges Rs. 5,357, showing a nominal profit of Rs. 68,229 against Rs. 47,113 in 1915-16 and Rs. 59,244 in 1914-15. The profit was largely due to the demand for sleepers created by the war.

No boats are now plying for hire on this canal, the only navigation being raft traffic and boats for carriage of Government material.

7. *Imperial*.—The gross revenue collected during the year amounted to Rs. 31,51,750, which is less by Rs. 1,01,657 than the average for the triennium ending 1915-16.

Financial results based on collee loss.
Kharif, 1916.

The decrease is due to the poor *kharif* crop of 1916.

The working expenses amounted to Rs. 13,56,021, which is Rs. 24,936 less than the average of the previous triennium.

The net revenue amounted to Rs. 17,95,729 against Rs. 18,72,390, the average of the previous triennium, and Rs. 16,00,937 of the previous year.

Contribution.—The net revenue received by the Patiala State on their channels on the Sirsa Branch amounted to Rs. 1,20,147 or 10.35 per cent. on the capital invested against an average of Rs. 1,52,018 or 13.10 per cent. for the triennium ending 1915-16 and Rs. 1,48,296 or 12.77 of the previous year.

8. (a) *Agricultural and other conditions of the year*.—The canal remained in flow for 339 days during the year and was closed for 22 days during *kharif* and 4 days during *rabi*. The monsoon was a good one and the rainfall above the normal except in the early months of the year. The area of crops remitted amounted to 4,855 acres in *kharif* and 1,879 acres in *rabi*, giving percentages of 1.39 and 0.39, respectively, on the area irrigated, against 6,184 acres for *kharif* and 12,630 acres for *rabi* or 1.71 and 2.72 per cent., respectively, in the previous year.

In the dry districts at Hissar and Rohtak there was severe fodder scarcity during the early *kharif* and the preceding *rabi* crop. Enormous quantities of fodder were imported at concession rates for the cattle and there was great demand for water for village tanks, but despite these measures, a

General Remarks.

large number of cattle died and a large number were sent off to more favoured tracts.

The decrease in number and quality of the cattle had also a detrimental effect on the ploughing for cultivation.

The scarcity had a very unfortunate effect upon plantation. The branches of miles of avenues were lopped by the adjoining villages for fodder for their cattle and the dry branches and twigs blown into the canal channels blocked regulators and bridges and required considerable vigilance on the part of the staff for their prompt removal. It will be some time before the damage to the plantation is made good.

Very little advantage was taken by the zamindars of the concession recently granted for levying no water rates on *Gwar* ploughed in as green manure.

The swampy area along the lower reaches of the Main Line is gradually being improved by the system of expensive silting reaches, and the silted up areas are being now brought under cultivation while the area beyond is being cultivated up to the banks of the silting tanks. The upper reaches of the Main Line also provide most beneficial *sailab* cultivation: several thousand acres of sugarcane and other crops are thus grown from the canal *sailab* free of water rates.

The value of crops assessed to water rates amounted to Rs. 3,51,72,945, which shows that the canal is a very valuable asset to the country.

(b) *Nature and scope of contemplated new works and progress made on the preparation of new projects*—(i) Further designs and estimates for the proposed new Level Crossing at Dadupur have been under consideration. This work is, however, likely to be delayed by the impossibility of obtaining the iron work at a reasonable rate until after the war.

(ii) There are proposals under consideration for remodelling the Head-works at Tajewala.

(iii) There is also a project for substituting minors in place of direct watercourses for the Main Line irrigation.

(iv) The work of redesigning the existing old channels scientifically is being carried forward systematically as funds permit, and the advantage of this is already clear from the increased areas of *rabi* crops.

(c) *Interesting facts relating either internally or externally to the Canal*.—(i) The recent reduction in supply of water to the Delhi neighbourhood carried out at the request of the Chief Commissioner is having most beneficial effects. The garden owners naturally at first protested unanimously against the reductions, but they are now following the example set by official Delhi and are clearing out the thick undergrowth in their gardens and letting in air, and the reduced water supply is found to be sufficient. The insanitary state of these gardens is decreasing and the subsoil water level of the neighbourhood is falling also. The sections of the channels are gradually being reduced to correspond with reduction in discharge.

(ii) Saltpetre has been largely manufactured throughout Rohtak and Hissar Districts owing to the demand for it on account of the war. The water for this manufacture is generally supplied by village tanks filled from the canal, though in some cases local *kacha* wells are used.

(iii) The opening of the Jind-Panipat Railway during the year has been a great convenience to the canal area served by it.

(iv) The introduction of indigo on the canal alluded to in last year's report has not been found to be successful and is being abandoned.

9. *Irrigation in Patiala State*.—The irrigation in the Patiala State from the Sirsa Branch was 32,707 acres in *kharif* and 46,432 acres in *rabi* or a total of 79,439 acres exclusive of 242 acres remitted in *kharif* and 13

acres remitted in *rabi*. The average area assessed for the last two triennia ending 1915-16 and 1912-13 was 67,179 and 61,307 acres respectively.

Irrigation in Jind State.—The supply which the Irrigation Branch has undertaken to allow the Jind State is 353 cusecs in order to irrigate an area of 60,000 acres in the year. The irrigation done during the year was 64,253 acres, resulting in an increase of 6,396 acres or 11.0 per cent. over the figures of 1915-16, i. e., 2,859 acres during *kharif* and 3,537 acres during *rabi*. The average areas irrigated during the two previous triennia ending 1912-13 and 1915-16 were 59,449 acres and 61,640 acres respectively.

Besides the area recorded above, the Jind State gets an average of 1,000 acres of irrigation from the Butana Branch which is assessed at the water rates prescribed for the British areas on the Western Jumna Canal.

The maintenance and assessment connected with all Jind distributaries are controlled by the State itself.

The following table shows the working of the Jind State distributaries as reported by the State :—

| Particulars. | 1912-13. | 1913-14. | 1914-15. | 1915-16. | 1916-17. |
|--|----------|-----------|-----------|----------|-----------|
| <i>Receipts.</i> | Rs. | Rs. | Rs. | Rs. | Rs. |
| Occupier's rate | 2,60,401 | 2,84,720 | 2,88,998 | 2,62,054 | 2,59,054 |
| Miscellaneous | 5,023 | 5,300 | 5,083 | 5,078 | 5,800 |
| Total | 2,65,424 | 2,90,020 | 2,94,081 | 2,67,132 | 2,64,854 |
| <i>Working expenditure.</i> | | | | | |
| Establishment | 2,414 | 7,561 | 7,817 | 7,397 | 10,191 |
| Other expenses | 24,995 | 27,258 | 23,865 | 31,770 | 21,676 |
| Occupier's rate paid into British Treasury . | 1,42,359 | 1,31,070 | 1,31,000 | 1,31,070 | 1,31,000 |
| Total | 1,71,768 | 1,65,889 | 1,62,682 | 1,70,237 | 1,62,867 |
| Profit or loss | +83,747 | +1,24,251 | +1,26,899 | +97,659 | +1,00,187 |

Irrigation in Bikaner State.—The Western Jumna Canal has also to irrigate 160 acres annually in the Bikaner State from the tail of the Hissar distributary. The areas actually irrigated were 324 acres in *kharif* and 637 acres in *rabi*, or a total of 961 acres against 483 acres in *kharif* and 85 acres in *rabi* or a total of 568 acres of the previous year. This area pays the ordinary occupier's rates and is assessed by the Canal Staff.

Irrigation in Kalsia State.—The irrigation in Kalsia State from Main Line of the Canal was 739 acres in *kharif* and 793 acres in *rabi* or a total of 1,532 acres exclusive of 23 acres remitted in *kharif* and 117 acres in *rabi*. This area also pays the ordinary occupier's rates and is assessed by the Canal Staff.

The average area assessed for the last three years was 713 acres in *kharif* and 896 acres in *rabi*.

SIREHIND CANAL.

(SUPERINTENDING ENGINEER—MR. E. R. FOX.)

1. (a) **Imperial.**—The expenditure (direct and indirect) amounted to Rs. 36,255 and was incurred on fixing Stoney gates in Rupar undersluices and lock channel, and constructing Executive Engineer's quarters at Rupar; a girder cart bridge at Sahauli, Mile 19, Abohar Branch; and a foot bridge at Bull, Mile 7, Abohar Branch.

(b) **Contribution.**—The expenditure of Rs. 15,284 represents the share borne by the signatory States, of the expenditure incurred on the Head Works and Main Line of the canal.

2. (a) *Imperial*.—The expenditure amounted to Rs. 1,35,272 against Rs. 1,34,403 in the previous year. The only work of importance was the Slab Lining Experiments on the Main Line. A large number of slabs were made, but the work could not be completed for want of a canal closure. Considerable progress was made on raising and widening the sunken bridges on distributaries in the Ferozepore Division. Amongst minor works of importance are—raising and renewing the shoots of Jaghara Mills; constructing drinking reservoirs at certain rest-houses; improving Gahil rest-house and making a telephone office and Gauge-Reader's hut at Gholia.

(b) *Contribution*.—Expenditure amounted to Rs. 1,21,675, of which Rs. 82,383 represents *soigniorago* charges. The balance of Rs. 39,292 is partly the share of expenditure on works on the Main Line and Head Works and partly the expenditure incurred on huts for petty establishment, erecting iron railings on ramps of bridges, etc., on Native States branches.

3. (a) *Imperial*.—The expenditure was Rs. 5,75,544 against Rs. 4,19,363 in 1915-16. The excess of Rs. 1,56,181 was caused by very heavy expenditure on the Budki, Siswan and Sugh torrents which had been rather neglected in previous years. A regular policy of training and defensive works was instituted. New and substantial forms of protection were adopted and it is confidently anticipated that after further work to be done in 1917-18, based on the experience gained in the current monsoon, we should have an impregnable series of protective works which should necessitate little or no repair work in future years.

Whereas of the works carried out in the ten years prior to 1915 little remains, the substantial works built in the winters of 1915-16 and 1916-17 have on the whole stood very well, and signs of weakness or defects in the designs will be removed this year and the future can be looked to with confidence.

All the above heavy works were carried out in addition to the ordinary maintenance of channels, works and buildings.

(b) *Contribution*.—The expenditure was Rs. 2,22,061 as compared with Rs. 1,42,931 spent in the previous year. The increase is due to heavy work on the torrent crossing the Main Line referred to in the previous paragraph.

4. (a) *Kharif, 1916*.—The canal was in flow for 125 days. The failure of the winter rains of 1915-16 led to a keen demand in the early months for water for fodder crops. This was followed by a heavy and well-distributed monsoon, and demand ceased entirely, so that the canal was closed all August. There was only a moderate demand in September. In spite of good rainfall the area irrigated, owing to extensive sowings early in the year on the whole canal, was the second highest on record, being only about Rs. 10,000 acres less than the maximum of 555,208 acres in *Kharif* 1914.

(b) *Rabi, 1916-17*.—The canal was in flow throughout the season. Owing to a heavy monsoon which was prolonged into October there was not an excessive demand early in the season. The river was high and rotational turns did not begin till 10th November, after which the supply fell and remained low throughout the season. There was no rise in the river owing to the failure of the winter rains and absence of storms in the hills, also there was no snow in the lower ranges of hills. The whole of the available supply was required for land already canal irrigated, and there was no water to spare for the large *barani* area which had been sown and, in the absence of rain, required canal water to mature.

The cultivators on this canal gamble on the rainfall. Had the river been kinder a large portion of the *barani* area would have become canal irrigated to the advantage of the cultivators and the canal.

(c) *Rainfall*.—The table below compares the mean rainfall of the year over the irrigated tract in each district with the average mean of 33 years. The *Khariif* rainfall was up to or in excess of the average, but the *rabi* rainfall was in considerable defect:—

| District. | Crops. | RAINFALL. | | Percentage of actual to average of 33 years. |
|---------------|---------------------------|-----------|---------------------|--|
| | | 1916-17. | Average of 33 years | |
| Ludhiana | <i>Khariif</i> , 1916 ... | 15.58 | 15.82 | |
| | <i>Rabi</i> , 1916-17 ... | 1.74 | 3.25 | |
| | Total ... | 17.32 | 19.07 | 91 |
| Perozepore | <i>Khariif</i> , 1916 ... | 14.35 | 11.53 | |
| | <i>Rabi</i> , 1916-17 ... | 0.75 | 2.14 | |
| | Total ... | 15.10 | 13.72 | 110 |
| Native States | <i>Khariif</i> , 1916 ... | 16.70 | 15.08 | |
| | <i>Rabi</i> , 1916-17 ... | 2.40 | 3.05 | |
| | Total ... | 19.10 | 18.13 | 105 |

5. The following table compares the irrigation effected during 1916-17 with the averages of the two triennia ending 1912-13 and 1915-16:—

Area irrigated.
Khariif, 1916.
Rabi, 1916-17.

| Crop. | | | Average of three years ending 1912-13. | Average of three years ending 1915-16. | 1916-17. |
|-------------------------------------|-----|-----|--|--|-----------|
| | | | Acrea. | Acrea. | Acrea. |
| BRITISH BRANCHES. | | | | | |
| <i>Khariif</i> | ... | ... | 258,200 | 321,756 | 333,500 |
| <i>Rabi</i> | ... | ... | 605,913 | 557,634 | 558,191 |
| Total | ... | ... | 864,113 | 879,390 | 891,781 |
| NATIVE STATES BRANCHES. | | | | | |
| <i>Khariif</i> | ... | ... | 148,528 | 191,450 | 211,186 |
| <i>Rabi</i> | ... | ... | 207,264 | 308,743 | 322,775 |
| Total | ... | ... | 445,792 | 500,202 | 533,959 |
| BRITISH AND NATIVE STATES BRANCHES. | | | | | |
| <i>Khariif</i> | ... | ... | 406,728 | 516,215 | 544,774 |
| <i>Rabi</i> | ... | ... | 903,177 | 866,377 | 880,326 |
| Total | ... | ... | 1,309,905 | 1,382,592 | 1,425,740 |

These figures show that the irrigation for the year was in excess of the average of either of the triennia quoted, although there was a decrease of 81,327 acres compared with the area irrigated in the previous year; this defect was in the *rabi*, the *kharif* was a very good one and the second highest on record, 544,774 acres against the maximum of 555,208 acres in *kharif* 1914.

The *rabi* area of 880,966 acres was over the average of the triennium ending 1915-16, but slightly less than the average of the triennium ending 1912-13. The latter period was affected by the *rabi* crops of two very favourable years 1911-12 and 1912-13.

However, we may claim to have had a very favourable year; the total area irrigated has only been surpassed on three occasions, *viz.*, in 1911-12, 1912-13 and 1915-16. The percentages of increase over the triennium ending 1915-16 were 5.53 in *kharif* and 1.63 in *rabi*.

The Native States branches also did very well, the *kharif* area being the highest on record, *viz.*, 211,184 acres.

6. The details of traffic in tonnage and receipts is shown in this table :—

| Particulars. | 1915-16. | 1916-17. |
|-------------------------------------|-----------|----------|
| Tonnage carried | 31,249 | 24,209 |
| Value of tonnage | 11,72,252 | 924,557 |
| Toll receipts and raft dues | 17,158 | 15,141 |
| Maintenance charges | 5,834 | 3,628 |
| Number of passengers carried | 20,605 | 18,409 |

There was a reduction in maintenance charges, and in consequence the net return was better than in the preceding year in spite of lower tonnage and fewer passengers.

7. (a) *British Branches*.—The net revenue earned by the British branches amounted to Rs. 29,76,526 equivalent to 11.63 per cent. on the capital invested as against 7.78 per cent. in the previous year. This favourable result was due to—

Financial results based on Collections.
Rabi, 1915-16.
Kharif, 1916.

(a) the very good *rabi* of 1915-16 (second highest on record) collected in 1916-17;

(b) an uncollected balance of Rs. 1,35,000 at the end of previous year collected during the year;

(c) the very poor *rabi* of 1914-15 (collected in 1915-16).

The following table gives the amount of occupier's rates collected and balance uncollected :—

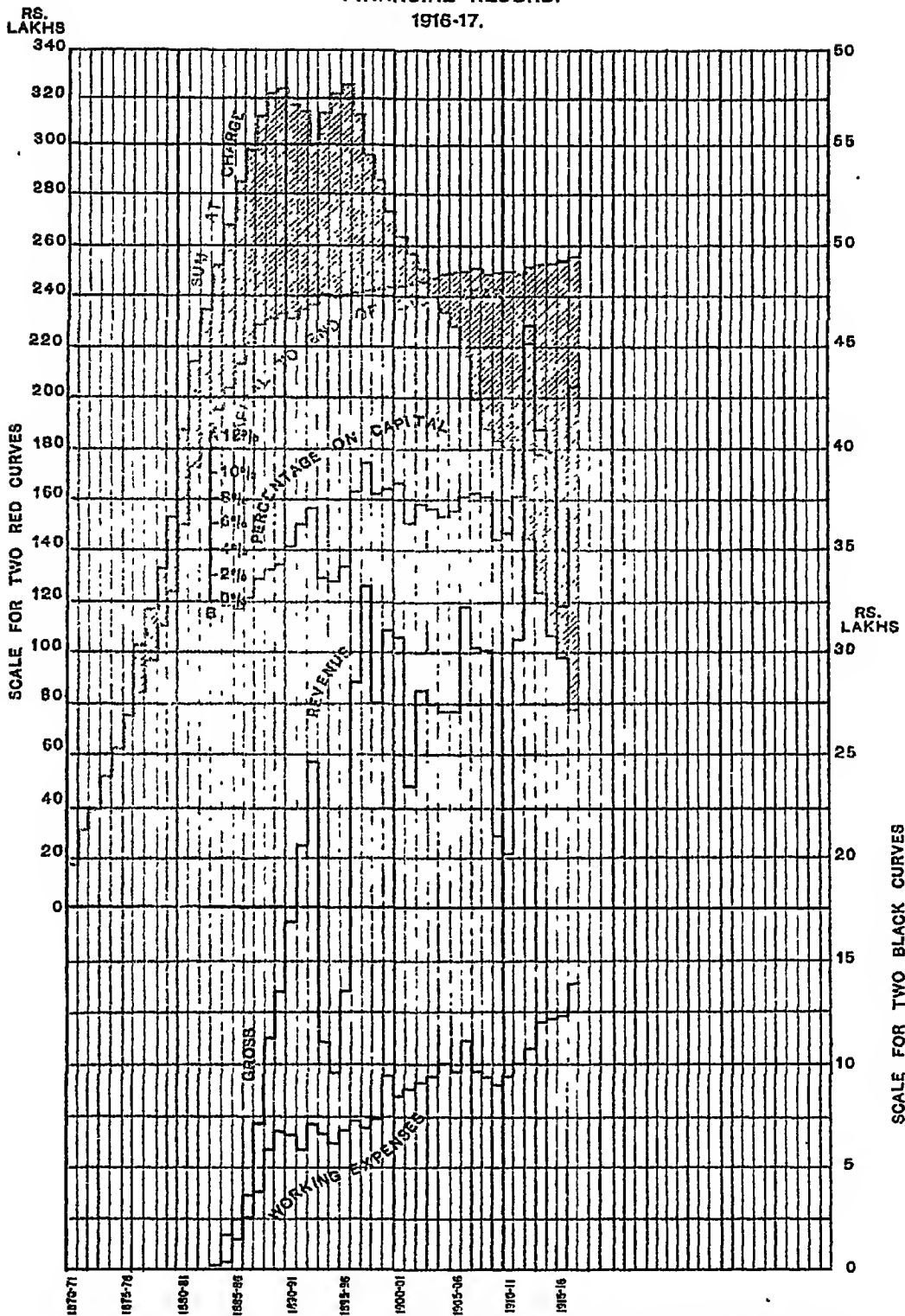
| Year. | Collected. | Balances uncollected. |
|----------------|------------|-----------------------|
| | Rs. | Rs. |
| 1914-15 | 35,92,152 | 28,909 |
| 1915-16 | 23,09,289 | 1,35,547 |
| 1916-17 | 39,53,965 | 23,098 |

The working expenses were Rs. 13,87,150 which was 1,48,292 more than in the previous year. The excess has been explained in paragraph 3 (a) *supra*. The working expenses per acre irrigated were 1.56 against 1.24 in the previous year.

SIRHIND CANAL—BRITISH.

FINANCIAL RECORD.

1916-17.



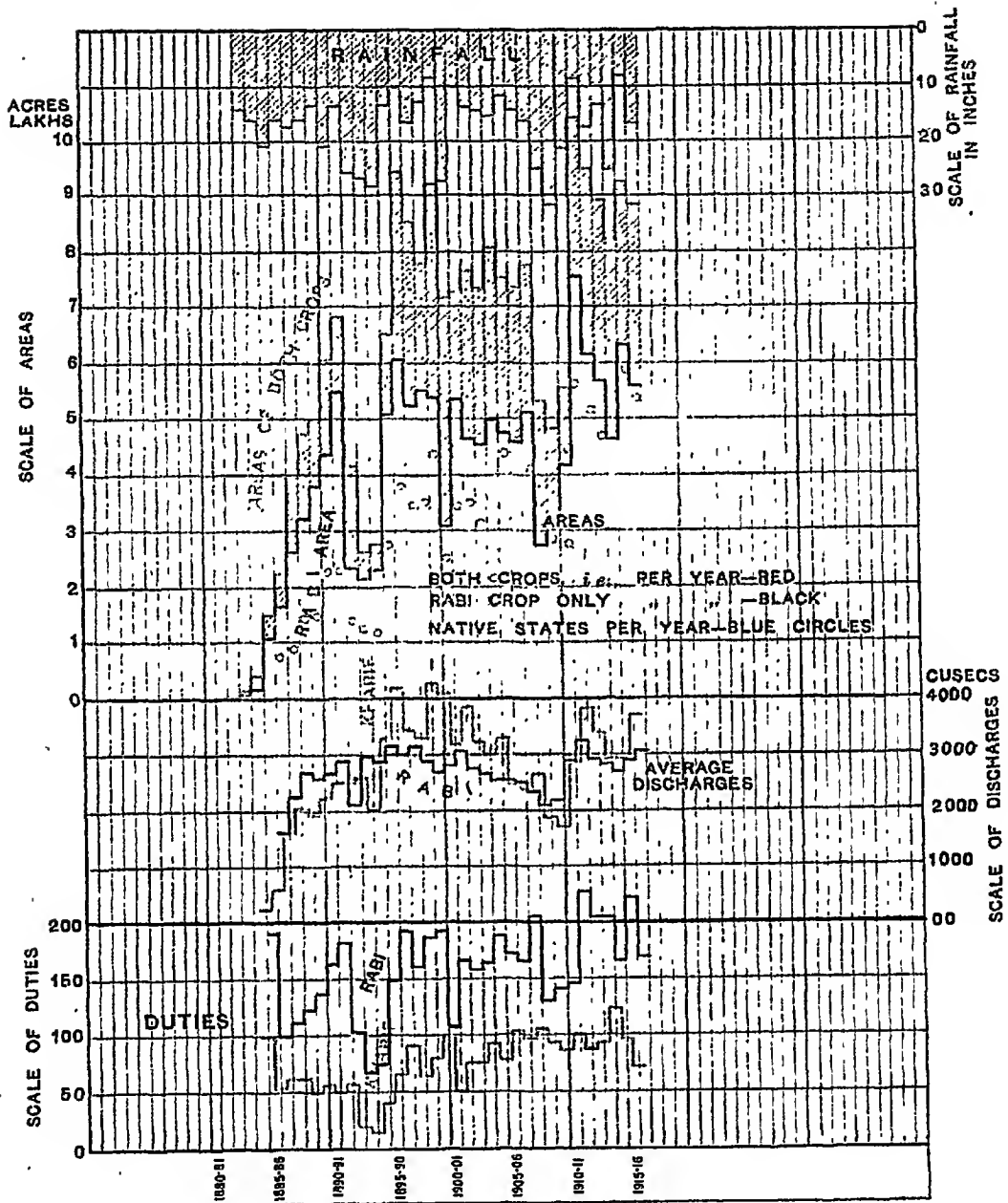
N. B.—The intercepts in the red area show arrears of interest which, added to the capital, give the sum at charge. Where the two red curves cross all such arrears were wiped off, and there after accumulated profits accrue, as measured by the intercepts in the blue area.

The scheme was begun about 1870 and opened in 1883-84. The lapse from prosperity shown in period 1888 to 1896 was partly due to silt troubles since overcome, and to exceptionally heavy rain.

The intercepts between the black curves give the net revenue.

No interest is charged on the arrears of interest, so the sum at charge is somewhat untrue.

SIRHIND CANAL—BRITISH. WORKING RECORD. 1916-17.



N. B.—The intercepts in the red area give the Kharif acreage each year.

The small areas of 1892 to 1896 were partly due to silt difficulties, but chiefly to heavy rain. The working is more or less unsteady always.

The discharges are measured in main line 26 miles from the head. Of the whole supply 36% goes to Native States, not included here; so that the discharges here shown are only 64% of the actual flow.

These States ought therefore to do areas equal to $\frac{36}{64}$ ths of those shown above. The actual areas done for both crops are shown for comparison by blue circle, and it will be seen that owing to less efficient management they have done less than half the British, instead of $\frac{36}{64}$ ths. In winter the whole river is taken in; in Kharif the supply is more than enough, but the demand is then always low.

(b) *Native States Branches*—The following table compares the figures of collections, assessments, profits and area assessed with the previous year:—

| Year. | AMOUNT OF REVENUE. | | Area assessed. | PROFIT ON | |
|------------------|--------------------|----------------|----------------|-------------|-------------|
| | By collection. | By assessment. | | Collection. | Assessment. |
| | Rs. | Rs. | | | |
| 1915-16 | 22,46,852 | 25,94,262 | 577,811 | 9-90 | 12-33 |
| 1916-17 | 25,72,310 | 24,22,608 | 532,050 | 11-35 | 10-83 |
| More or less ... | +8,25,458 | -1,71,654 | -45,761 | +1-48 | -2-00 |

The profits on "collections" are high because of the good *rabi* crop of 1915-16 collected in 1916-17. The estimated profits on assessments are lower because of the smaller *rabi* crop of 1916-17.

8. *New projects*.—(a) An estimate for constructing two small distributaries for irrigation in the Maler Kotla State has been submitted to the Government of India and their orders are awaited.

(b) The Bhakra Dam Project (in previous years referred to as the Neith Dam) is in course of preparation. The areas to be served and the volumes required for them have now been fixed. All field work is practically finished and alignments of new main channels have been selected. The site of the new headworks below Phillaur near the battlefield of Aliwal of the 1st Sikh War has been fixed. In the reservoir area complete plans have been prepared on village maps showing all details of the submerged areas. Investigations as to silt capacity of water borne in the Sutlej above Bhakra and at Ruper have been carried out. Detailed proposals for the design of the Dam itself, its sluices and spillways are under consideration. It is anticipated that the total area of new irrigation will average 1,500,000 acres annually.

(c) A small project for utilizing the waste waters of the Sutlej Navigation Channel (run in the *kharij* to work mills) to irrigate the country in the neighbourhood of Perotepera is also under preparation.

Effect of enhancement of water-rates.—The effect of enhancement of water rates in the case of sugarcane, cotton and wheat has not been such as to restrict the areas under these crops. Compared with the previous year the results are as follows:—

Sugarcane.—Area irrigated 1,725 acres against 1,071 in the previous year.

Cotton has made a big jump—10,773 acres sown in 1916 against 1,631 acres in the preceding year. This rise is due to far better market rates than prevailed in the previous year.

Wheat.—The area under wheat has dropped from 299,013 in 1915-16 to 258,280 in the year under review, but this falling off is only due to the general decrease in the whole area of the *rabi* crop.

Agricultural conditions.—The year may be looked on as generally favourable. The monsoon of 1916 was favourable and well distributed, permitting large *barani rabi* areas to be sown. If there had been winter rains the crop would have been a bumper one. As it turned out canal irrigated crops were average to good; *barani* crops poor to average.

Some hail in March did slight damage in the Ludhiana and Bhatinda Divisions; considerably more damage was done by the rain which fell in April and May this year which interfered with harvest operations and damaged grain on the winnowing floors.

The area of failed crops on which water-rates were remitted was only 10,212 acres against 32,603 in the preceding year.

Interesting facts.—The period for which the Project Division was sanctioned had to be extended for a year till October 1917. It will be necessary to ask for a further extension of six months.

The necessity for another irrigating Division was recognized, but the scheme is held in abeyance till the cessation of the war owing to additional expenditure involved. The question of extending the area on which perennial should be converted into *khariif* irrigation in order to improve water-logging conditions is under consideration again.

UPPER BARI DOAB CANAL.

(SUPERINTENDING ENGINEER—MR. F. W. K. YEOMANN).

1. The expenditure (direct and indirect) on works, excluding Suspense, amounted to Rs. 1,25,769 against Rs. 4,79,600 in the previous year, and was incurred on remodelling the Head Works at Madhopur; the Hydro-Electric Installation at Amritsar; and lining the Main Branch Lower with cement plaster.

Capital account.
Khariif, 1916.
Rabi, 1916-17.

The sum of Rs. 1,25,769 includes Rs. 84,847 on account of expenditure in England. The Suspense account showed a credit balance of Rs. 1,55,923 compared with the credit balance of Rs. 1,30,418 in the previous year.

2. Expenditure amounted to Rs. 1,06,811 against Rs. 1,02,058 in the previous year, and was chiefly incurred on constructing outlets and culverts, Niaz Beg Distributary; remodelling Ghosal and Tarpai Drains; and providing gates and winches for Sathiali Regulator. Besides these a number of other miscellaneous works of an urgent nature and of small magnitude were executed.

Extensions and Improvements.

3. Expenditure amounted to Rs. 4,63,600 against Rs. 5,36,636 in 1915-16. In addition to the ordinary annual maintenance and repairs expenditure was incurred on the following important items:—Works in the river at the Head Works; shingle clearance from the Main Canal and Feeders; extending boulder pitching in the Main Line and Main Branch Upper and on numerous petty works.

Maintenance and repairs.

4. The total output of manufactures during the year amounted to Rs. 2,13,124 (in addition to the cost of munition work) against Rs. 2,61,834 in the previous year. The percentage charges realized on the value of work done amounted to Rs. 67,560 only against Rs. 1,04,581 of the previous year, but, in addition to this, a sum of Rs. 68,968 on account of departmental charges on munition work was credited. The Power Station of the Amritsar Hydro Electric Pumping Scheme was completed. Munition work continued for about nine months of the year and the expenditure on this special work amounted to Rs. 2,35,033 which was transferred to the Railway Board (Munitions).

Central Workshops.

A considerable amount of work was done for other circles in connection with—

- (i) remodelling Khanki Weir Shutters;
- (ii) fitting the Merala Regulator with standing gear and balanced gates;
- (iii) remodelling the Rasul Regulator, etc.

5. The following table compares the area irrigated during the year with the average of the two previous triennia:—

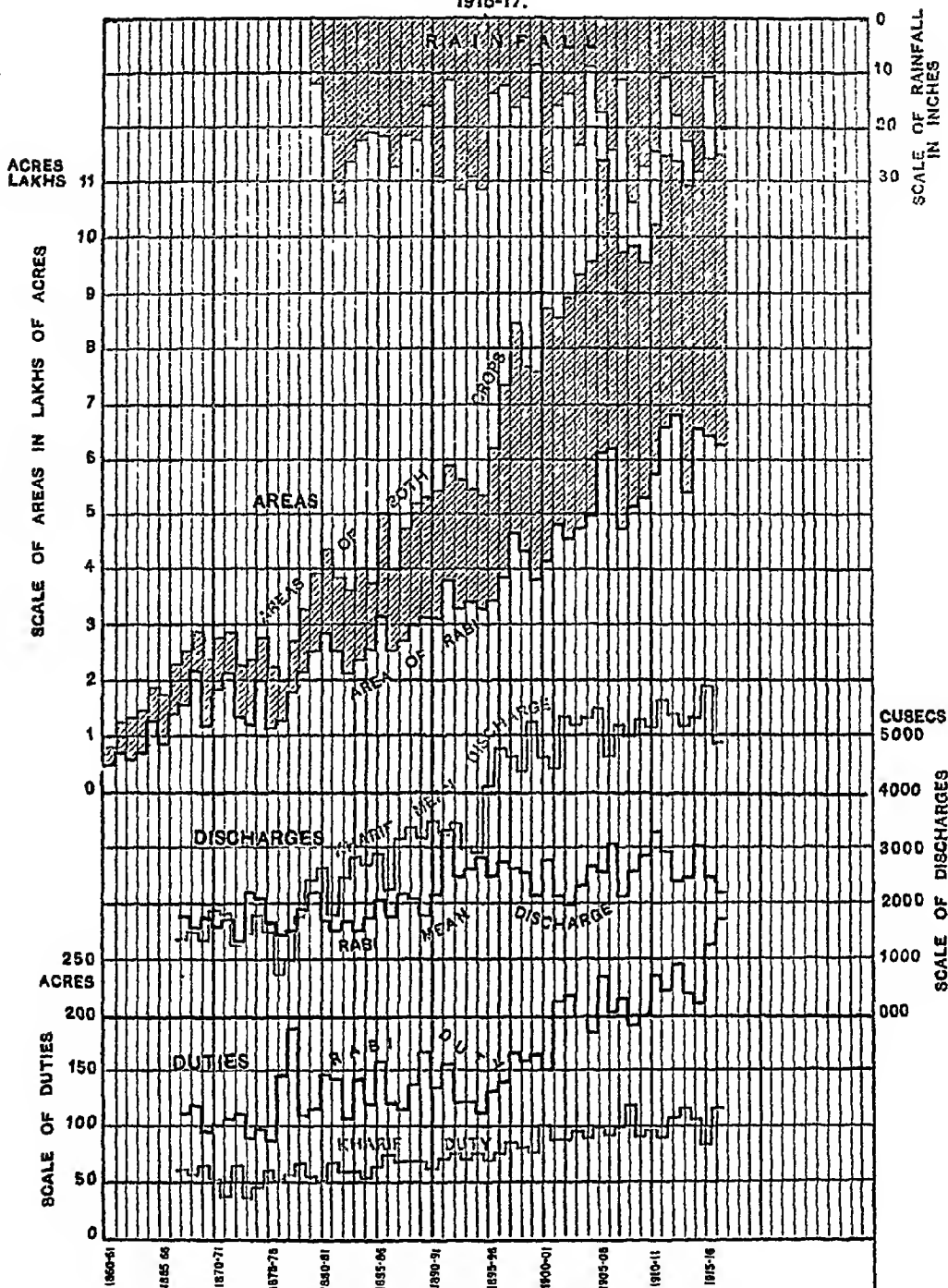
Area Irrigated.
Khariif, 1916.
Rabi, 1916-17.

| Crop. | | | | AVERAGE OF 3 YEARS ENDING | | AREA IRRIGATED DURING |
|---------|-----|-----|-----|---------------------------|-----------|-----------------------|
| | | | | 1912-13. | 1915-16. | 1916-17. |
| | | | | Acres. | Acres. | Acres. |
| Khariif | ... | ... | ... | 498,702 | 529,633 | 569,406 |
| Rabi | ... | ... | ... | 622,287 | 623,770 | 631,991 |
| Total | | | | 1,120,989 | 1,153,403 | 1,201,397 |

UPPER BARI DOAB CANAL.

WORKING RECORD.

1915-17.



N. B.—The intercepts in the red area show the Kharif aereage each year.

The discharges are measured at canal head and are averages for each crop.

The duties are derived from these areas and discharges.

Remarks.—The Kharif duty is fairly uniform and increasing slowly.

The Rabi duty is more irregular, due to variation in demand, but is increasing recently.

The Rabi supply decreased fairly steadily from 1891-92 to 1902-03, but nevertheless the areas increased owing to higher duty.

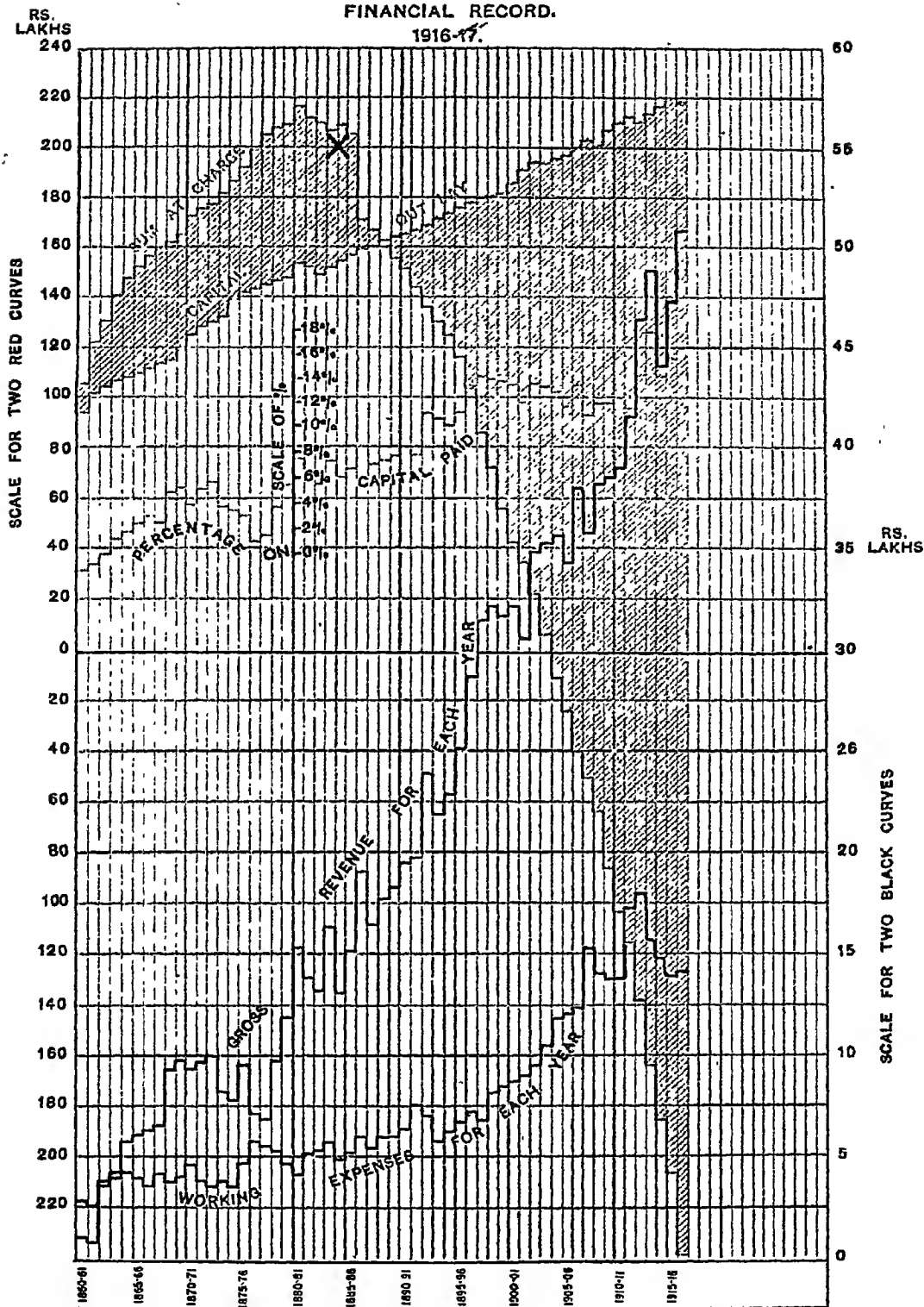
The Kharif supply has increased since 1884 very considerably, owing to the capacity of the canal being enlarged.

Usually the whole of the river winter supply is taken in for the Rabi crop, but after March and up to September the river supply is in excess of requirements.

UPPER BARI DOAB CANAL.

FINANCIAL RECORD.

1916-17.



N. B.—The intercepts in the red area show arrears of interest unpaid up to end of each year, which being added to the capital give sum at charge.

The intercepts in the blue area give the accumulated profits. In 1904-05 the whole capital was reimbursed.

No interest is charged for the surus in the red area, so the diagram is rather distorted in this respect.

The intercepts between the black curves give the net income each year.

Remarks.—The sudden drop at X is partly due to a write-back of about 30 lakhs, but was continued by the rapid development of irrigation in the lower reaches of the canal. Up to 1886-87 the canal worked at a loss, since then it has been very profitable.

Nature of Seasons and state of Demand and Supply.
Kharif, 1916.
Rabi, 1916-17.

6. The mean rainfall is compared with the averages of the previous three years in the following table:—

| District. | 1916-17. | | AVERAGE OF PREVIOUS 3 YEARS ENDING 1915-16. | |
|------------------|----------|-------|---|-------|
| | Kharif. | Rabi. | Kharif. | Rabi. |
| Gurdaspur | 28.21 | 1.51 | 26.73 | 7.02 |
| Amritsar | 27.56 | 0.39 | 17.14 | 5.49 |
| Lahore | 21.89 | 0.73 | 12.87 | 4.09 |

The monsoon of 1916 was, on the whole, a very favourable one. Rain was general during June, July, August and September, and was particularly heavy during July and August when rain was recorded on 15 and 18 days, respectively, at Madiohur.

A short break occurred from 1st to 17th September, but after that rain continued up to 5th October when the monsoon ended.

From 6th October to the end of March there was no rain except for isolated showers of small amounts during January and March, and the failure of the winter rains put a very great strain upon the canal, more especially as the river supply was abnormally low. However, in spite of the extremely unfavourable conditions, the large rabi area was matured without any unusual remissions having to be given.

7. The net income (direct and indirect) amounted to Rs. 37,89,733, equivalent to 17.35 per cent. on the capital invested against 15.29 per cent. of the previous year.

Financial results based on collections.
Rabi, 1915-16.
Kharif, 1916.

The uncollected balance of occupiers' rate was Rs. 15,912 against Rs. 14,975 at the end of the previous year. Remissions of water-rate amounted to Rs. 1,02,704 against Rs. 84,219 in the previous year. The area for which remissions were granted was 29,076 acres compared with 22,850 acres in 1915-16.

8. (a) *Duty*.—The average duty secured on the supply utilized was 117 acres in *kharif* and 285 acres in *rabi* as against 83 and 263, respectively, in the previous year.

General Remarks.

Owing to the failure of the winter rains no extended closure for repairs was possible, but on account of heavy rainfall the canal was closed at the Head from 15th to 28th July.

(b) *Principal crops*.—The principal crops grown during the year are compared in the following table with those grown in the previous year:—

| Name of crop. | | | | | 1916-16. | 1916-17. |
|---------------|-----|-----|-----|-----|----------|----------|
| | | | | | Acres. | Acres. |
| Wheat | ... | ... | ... | ... | 241,185 | 248,539 |
| Barley | ... | ... | ... | ... | 6,251 | 5,375 |
| Rice | ... | ... | ... | ... | 72,749 | 80,854 |
| Maize | ... | ... | ... | ... | 88,517 | 74,569 |
| Millet | ... | ... | ... | ... | 45,907 | 137,379 |
| Cotton | ... | ... | ... | ... | 88,290 | 147,021 |
| Sugarcane | ... | ... | ... | ... | 29,601 | 42,465 |

*Includes chauri which was not the case last year.

The increase under cotton is noteworthy as it seems to show that the cultivators were eager to take advantage of the high market rates prevailing.

(c) *Agricultural conditions*.—The monsoon of 1916 was extremely favourable and continued up to an unusually late date. Had it not been for this the total failure of the winter rains would have had a much more serious effect upon the agricultural conditions.

Scarcity of water during the *rabi* months prevented the straw growing to its normal length and the outturn of *dhusa* was thus very short, and the untimely rain which fell in April 1917 interfered with harvesting and damaged the grain to some extent.

(d) *Contemplated new works*.—Remodelling Head Works (outlet).

In eight out of twelve bays the old gates were replaced by quick-lifting gates obtained from Messrs. Ransome and Rapier in England and in the remaining four bays similar new gates will be fitted during the next cold weather. The new gates are working very satisfactorily. Four bays of the inlet out of 23 have been fitted with radial arm gates, and it is hoped to provide this type of gate throughout the inlet as soon as materials can be obtained at reasonable rates.

LOWER BARI DOAB CANAL.

(SUPERINTENDING ENGINEER, MR. R. OANNELL).

- | | |
|--|--|
| <p>1. The expenditure (direct and indirect) was Rs. 7,92,271 which raised the total amount debited to the Project at the end of the year to Rs. 2,18,74,263 against the Revised Project Estimate of Rs. 2,20,28,402.</p> | <p>Capital account. Kharif, 1916. Rabi, 1916-17.</p> |
|--|--|

The above expenditure includes a temporary debit of Rs. 11,46,636 spent on the construction of water-courses pending recovery from the colonists.

The Revised Project Estimate was closed at the end of the year under review with a saving of Rs. 13,00,775 including the amount to be recovered from colonists.

The expenditure was incurred chiefly on the following works:—

(a) *Head Works*.—Painting ironwork of the Balloki Level Crossing; determining values for the Ravi sand at Balloki to ascertain the limiting safe hydraulic gradient of the barrage; strengthening the Balloki Weir glacis at a cost of Rs. 1,56,451; fixing pressure and relief pipes, for observations, in the new floor; and repairing the stone apron downstream of the weir opposite Bays 1 to 4.

(b) *River Training Works*.—Including necessary maintenance and repairs to embankments and spurs and a planetable survey of the river Ravi above and below the barrage.

(c) *K—Buildings*.—Some quarters for zilladars were completed and the construction of others was held in abeyance owing to stringency of funds due to the war. Superintending Engineer's house and office at Montgomery were completed: also the Nathuwala rest-house. A double set of signallers' quarters (permanent) was constructed at Balloki.

(d) *Plantation*.—Plantation operations were carried out on a small scale only, as expenditure is restricted, avenues were extended and those in existence carefully maintained.

(e) *Distributaries*.—Construction of distributaries 1-L, 2-L, and 8-AR was commenced during the year. 1-L was completed, and the channel excavation of 2-L one-third completed. The project and designs for 8-R were sanctioned.

(f) *Water-courses*.—During the year the construction of water-courses was completed on allotted areas, and in some cases, in advance of colonization.

Extensions and Improvements.

2. An expenditure of Rs. 8,961 was incurred on different petty works.

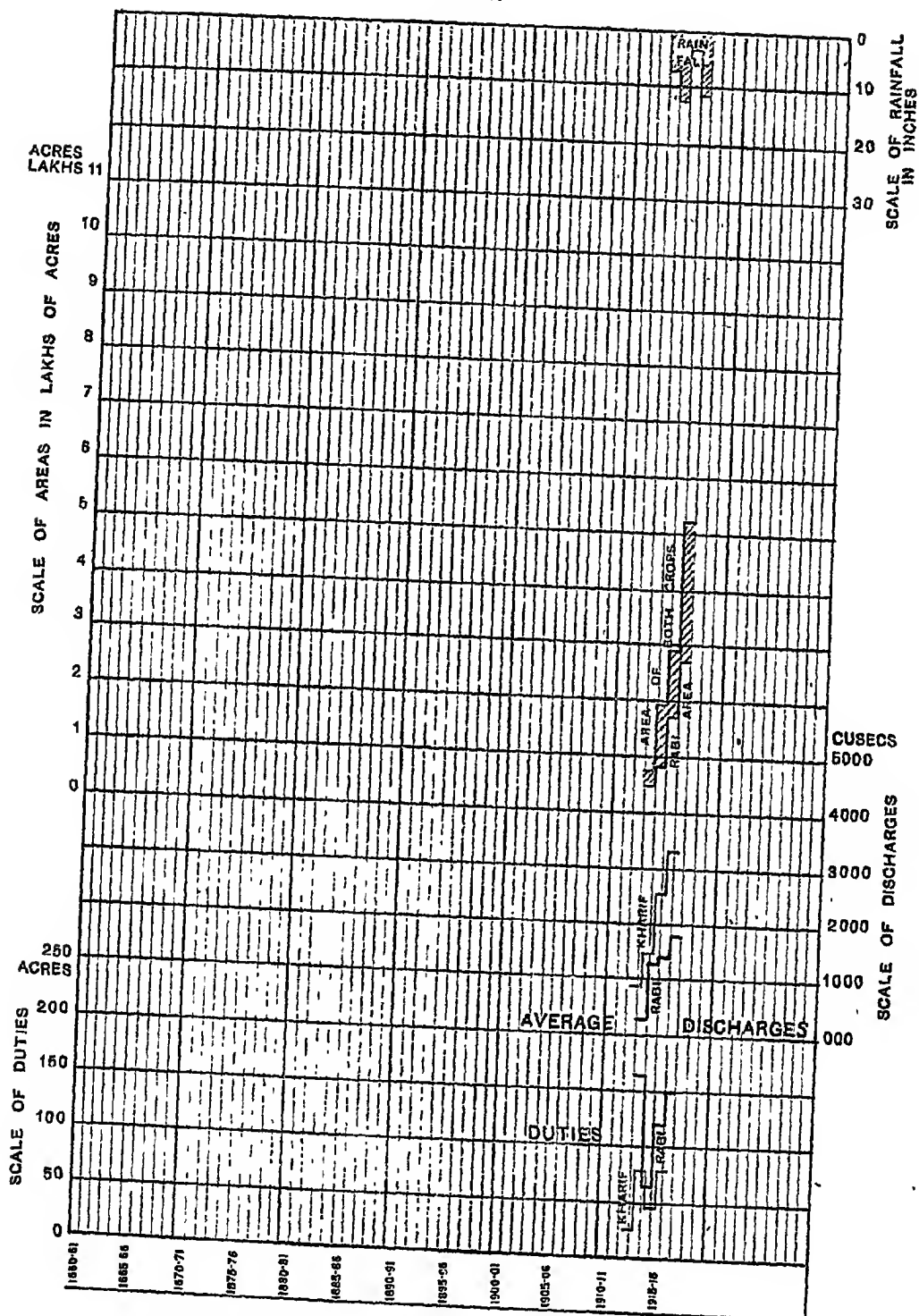
3. An expenditure of Rs. 3,59,646 was incurred on ordinary maintenance of channels, masonry works and buildings, the process of stanching and consolidating new banks and the encouragement of berm formations were continued zealously.

Maintenance and Repairs.

LOWER BARI DOAB CANAL.

WORKING RECORD.

1916-17

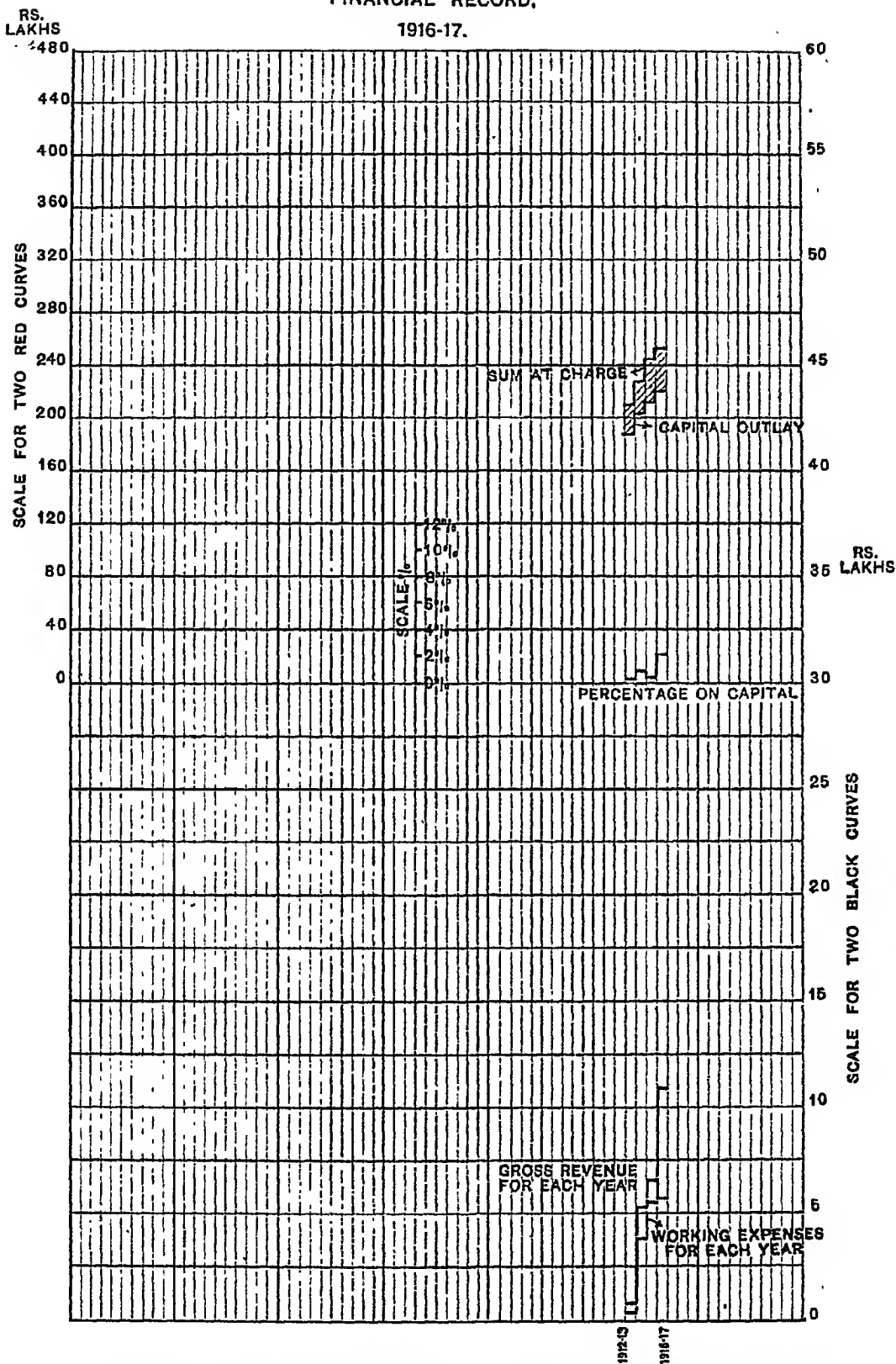


N.B.—The intercepts in the red area show the Kharif acreage each year.
The discharges are measured at canal head and are averages for each crop.
The duties are derived from these areas and discharges.

LOWER BARI DOAB CANAL.

FINANCIAL RECORD.

1916-17.



N. B.—The intercepts in the red area show arrears of interest unpaid up to end of each year, which being added to the capital give sum at charge.

The intercepts between the black curves give the net income each year.

Generally, there were very few breaches, and nowhere was the supply of water restricted and short on account of inefficient channel maintenance.

4. The canal flowed for 343 days (*viz.*, 171 days during *kharif* and 172 days during *rabi*) against 264 days during the previous year. The demand for canal water was good during the *kharif* and very keen in *rabi*.

Nature of Seasons and state of Demand and Supply :
Kharif, 1916.
Rabi, 1916-17.

The rivers in the winter were very low and the water during the *rabi* had to be distributed under a fixed rotational system throughout. Although the Upper Jhelum Canal supplies improved during the winter yet they were still short of full design and, in order to avoid harassment due to the shortage of water, a scheme for water distribution had to be worked out. The winter river supplies proved to be the minimum on record and a shortage was felt.

Rainfall was abnormal during *kharif* 1916 and scanty during *rabi* 1916-17. The rainfall is compared below with the average of the previous year:—

| | | | 1916-17. | 1915-16. |
|------------|-----|-----|----------|----------|
| Lahore | ... | ... | 18.42" | 4.27" |
| Montgomery | ... | ... | 12.90" | 4.19" |
| Multan | ... | ... | 5.46" | 2.35" |

5. The following table compares the areas irrigated with those of the previous year:—

| District. | 1915-16. | | | 1916-17. | | |
|----------------|----------------|--------------|---------|----------------|--------------|---------|
| | <i>Kharif.</i> | <i>Rabi.</i> | Total. | <i>Kharif.</i> | <i>Rabi.</i> | Total. |
| Lahore ... | 1,468 | 1,538 | 3,056 | 2,211 | 1,941 | 4,152 |
| Montgomery ... | 92,370 | 131,006 | 226,376 | 181,046 | 196,911 | 380,957 |
| Multan ... | 21,136 | 32,726 | 53,862 | 62,186 | 67,641 | 129,827 |
| Total ... | 114,974 | 168,320 | 283,294 | 243,143 | 266,493 | 514,936 |

Compared with the Project the total area irrigated shows a falling off of 125,064 acres. This was to be expected as the Upper Jhelum Canal, on which the working of this canal is dependent, was opened a year later than it was anticipated in the Project and was not able to carry the full supply intended,—*vide* paragraph 4 above. The abnormally low supply in the rivers and absence of winter rainfall were also the reasons which led to this shortage in irrigation.

6. The gross receipts (direct and indirect) amounted to Rs. 9,64,893 and the working expenses to Rs. 6,26,356, resulting in a net saving of Rs. 3,38,537.

Financial results based on collection :
Rabi, 1915-16.
Kharif, 1916.

7. During the year the Tulamba Sub-Division was constituted in the Khanewal Division for the construction of S-K and S-AR distributaries.

* General Remarks.

The staff of the Montgomery and Okara Divisions were engaged in developing new channels and maintaining a supply of water, necessary for the growth of irrigation. The principal work in the Balloki Division was that of thickening the glacis of the weir at a cost of Rs. 1,65,000. The work was completed satisfactorily.

The Gugera Branch, as a combined *kharif* and perennial channel, was not working satisfactorily and the question of converting it into a perennial channel was under consideration.

Proprietary lands have been broken up and are being irrigated. The available *culturable Crown waste* lands after deducting bad lands, "ghair-mum-

kin," etc., and the total areas of Crown waste land allotted at the beginning and end of the year are given below :—

| Canal Division. | CROWN WASTE LANDS, IN ACRES. | | |
|-----------------|------------------------------|-----------------------------|------------------------------|
| | Culturable area: | Allotted to 1st April 1916. | Allotted to 31st March 1917. |
| | Acres. | Acres. | Acres. |
| Balloki ... | } | | |
| Okara ... | | | |
| Montgomery ... | | | |
| Khanewal ... | | | |
| | | | |
| Total ... | 927,622 | 423,615 | 656,394 |

A large area of Crown waste lands of good culturable quality remains to be allotted, and it is necessary for quick development to give them out on temporary leases if not on permanent.

The headquarters of the Circle Office and its staff were moved from Lahore to Montgomery in October 1916.

UPPER CHINAB CANAL.

(SUPERINTENDING ENGINEER—MR. N. WHITE.)

1. The construction estimate was closed on 31st March 1917 with an expenditure of Rs. 3,53,42,184 (direct and indirect) including Rs. 8,25,060 transferred to the Upper Jhelum Canal Project, against the Revised Project estimate of Rs. 3,65,32,021.

The expenditure during the year amounted to Rs. 8,40,591 and was chiefly incurred in carrying on the construction of the Raya and Nokhar Branch systems; the distributaries on these are now nearly complete; only a few minor channels remain; also in completing the Dog Diversion Channel and on purchasing cast-iron pipes for outlets and on bridges, buildings and embankments.

2. The only important work carried out was an extension of one of the river weir groynes at Marala; this groyne was extended downstream to break up a cross current that had set up along the face of the weir; the work, commenced last year, has since been completed and found successful.

The total expenditure was Rs. 25,803 out of which Rs. 21,602 were spent on the above work.

3. The expenditure of Rs. 4,65,154 was about 20 per cent. in excess of the previous year, due partly to opening up of new channels and partly to the strengthening of the new banks of the main canal to cope with the higher supplies required by the expansion of irrigation on this and the Lower Bari Doab Canals.

4. The following statement compares the rainfall with the previous years :—

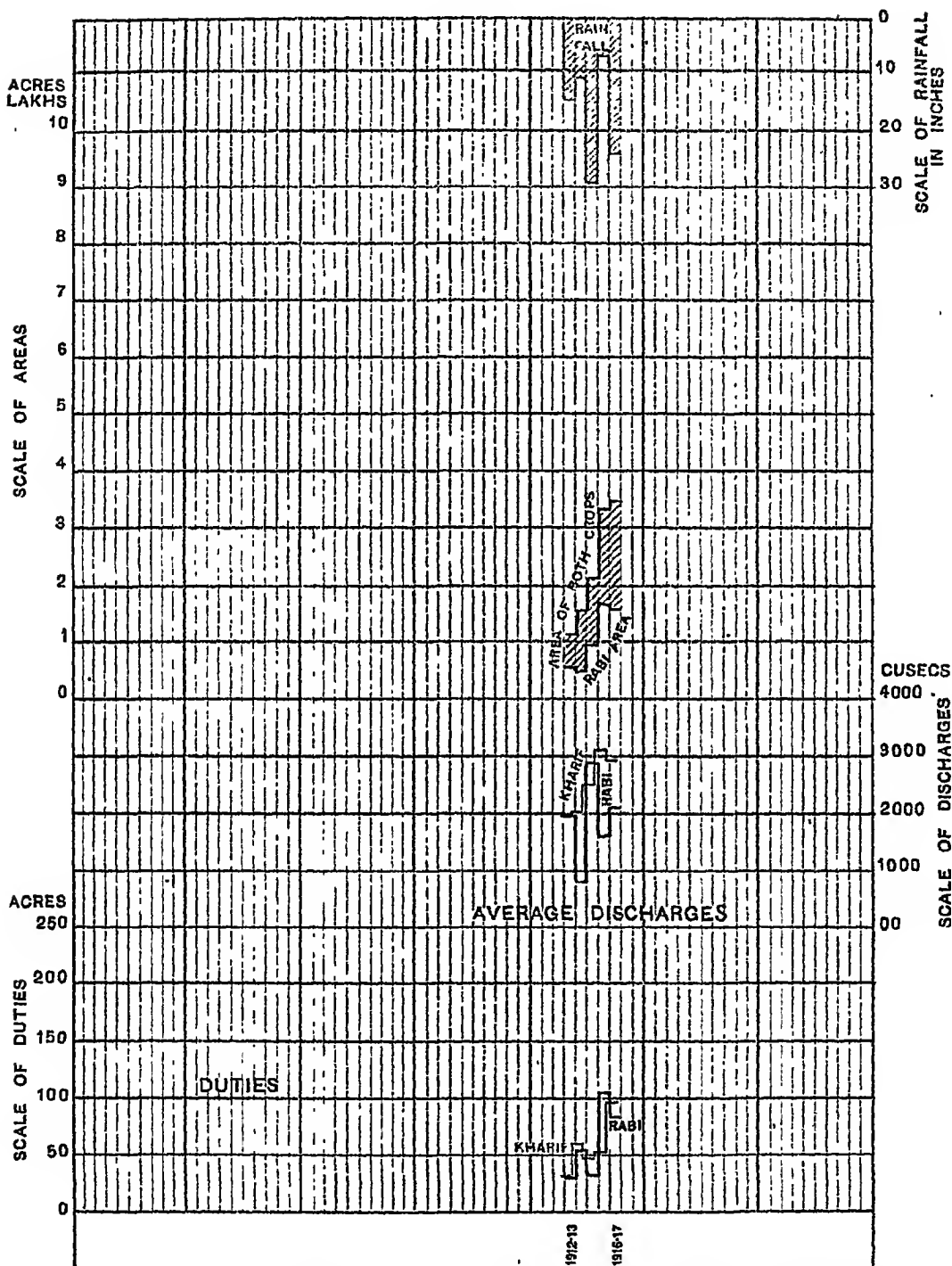
| District. | 1912-13. | | 1913-14. | | 1914-15. | | 1915-16. | | 1916-17. | |
|----------------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|
| | Kharif. | Rabi. | Kharif. | Rabi. | Kharif. | Rabi. | Kharif. | Rabi. | Kharif. | Rabi. |
| Sialkot ... | 14.0 | 2.9 | 19.0 | 2.9 | 25.0 | 7.7 | 9.6 | 1.7 | 29.46 | 0.72 |
| Gujranwala ... | 11.7 | 2.4 | 15.2 | 2.4 | 20.0 | 5.1 | 4.2 | 0.9 | 24.85 | 1.24 |

The monsoon was above normal and the *kharif* crops very fair, but the winter season was again abnormally dry and the river supplies again unusually low; great difficulty was consequently experienced in maturing the *rabi* crops and 9 per cent. failed.

UPPER CHENAB CANAL.

WORKING RECORD.

1916-17.

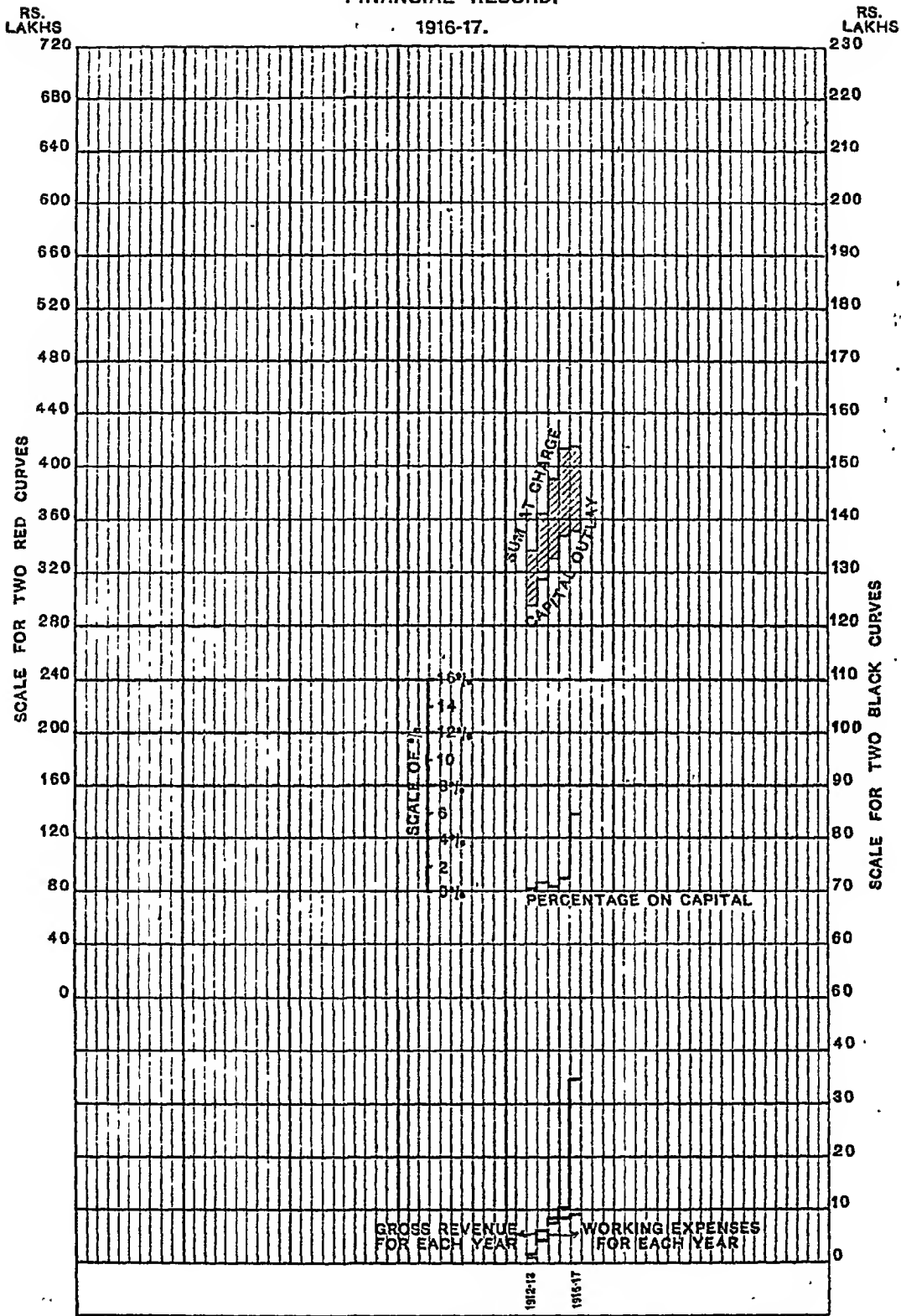


N. B.—The intercepts in red area give the Kharif irrigation each year. The discharge are measured at Merala the head of canal and give averages for each crop. The duties are derived from these areas and discharges.

UPPER CHENAB CANAL.

FINANCIAL RECORD.

1916-17.



N. D.—The intercepts in the red area show arrears of interest which, added to the capital, give the sum at charge.

The intercepts between the black curves give the net income each year.

Construction commenced in 1905 and the canal was opened in 1912.

5. The area irrigated compares with the figures for the preceding years :—

Area irrigated :
Kharif, 1916.
Rabi, 1916-17.

| Years. | Kharif. | Rabi. | Total. |
|----------------|---------|---------|---------|
| 1912-13 | 62,691 | 53,471 | 116,162 |
| 1913-14 | 123,882 | 40,228 | 164,110 |
| 1914-15 | 121,189 | 90,693 | 211,882 |
| 1915-16 | 159,152 | 165,910 | 325,062 |
| 1916-17 | 285,917 | 151,560 | 437,477 |

The increase in the *kharif* area is remarkable but the *rabi* area, on the other hand, has dropped slightly ; this is entirely due to the failure of the winter rains and the low river supply.

6. The gross receipts, working expenses and net revenue are given below and compared with the previous three years :—

Financial results based on Collections :
Rabi, 1915-16.
Kharif, 1916.

| Years. | REVENUE. | | | Working expenses. | Net Revenue. |
|----------------|-----------|-----------|-----------|-------------------|--------------|
| | Direct. | Indirect. | Total. | | |
| | Rs. | Rs. | Rs. | Rs. | Rs. |
| 1913-14 | 5,53,363 | 5,903 | 5,59,269 | 4,03,077 | 1,56,192 |
| 1914-15 | 6,21,061 | 2,91,762 | 8,25,326 | 7,75,292 | 50,534 |
| 1915-16 | 9,33,256 | 61,077 | 10,17,333 | 8,33,808 | 1,83,525 |
| 1916-17 | 23,08,678 | 2,51,872 | 25,63,550 | 8,36,261 | 17,25,286 |

The total receipts anticipated in the Project forecast amounted to Rs. 28,53,145 (direct Rs. 20,99,529 and indirect Rs. 7,53,616). Actual direct receipts exceed the forecast. The indirect are short because the system of indirect credits on this canal has not been fully settled ; the question is complicated and is under consideration.

7. The Deg Nallah was active during the monsoon, but the Deg Diversion embankment was maintained intact although the flood water reached as high a level as in 1914 ; the diversion channel has scoured satisfactorily and the possibility of damage by floods thereby reduced.

LOWER CHENAB CANAL.

(SUPERINTENDING ENGINEER—Mr. F. T. BATES.)

1. The expenditure (direct and indirect) amounted to Rs. 5,58,238, bringing the total outlay to date to Rs. 3,23,55,018. The expenditure incurred was mainly on the following works :—Water-proofing the Jhang Branch Upper ; constructing a Regulator in the Jhang Branch Upper near Kot Khudayar for improving command in certain distributary channels ; raising the crest of the Khanki Weir for improving command of the silt conditions at Khanki ; and constructing main and subsidiary revetments at the head of the Palkhu Spur at Khanki for improving river approach to the Canal.

Capital account :
Kharif, 1916.
Rabi, 1916-17.

2. The expenditure amounted to Rs. 5,29,113 and was mainly incurred in the improvement of the right bank river defence works ; the construction of seepage drains for the prevention of water-logging in the Hafizabad Tahsil and in the replacing of the old type of masonry outlets by modules for the rateable distribution of water.

Maintenance and Repairs.

3. Expenditure was Rs. 8,79,613 against Rs. 9,95,947 in the previous year.

Nature of Seasons and state of Demand and Supply :
Kharif, 1916.
Rabi, 1916-17.

4. In the *kharif* owing to good general rainfall the demand throughout was moderate and canal supply adequate.

In the *rabi* the rainfall was insignificant causing low river and a keen demand for irrigation.

Rainfall.—The following is the record of rainfall during the year compared with that of the three previous years :—

| Mean for | | | | Lyallpur District. | Jhang District. | Gujranwala District. |
|-----------------------|-----|-----|-----|--------------------|-----------------|----------------------|
| | | | | Inches. | Inches. | Inches. |
| <i>Kharif</i> , 1916 | ... | ... | ... | 11.67 | 8.99 | 20.48 |
| <i>Rabi</i> , 1916-17 | ... | ... | ... | 0.77 | 0.63 | 0.93 |
| Total | | | | 12.44 | 9.62 | 21.61 |
| 1915-16 | ... | ... | ... | 2.28 | 2.92 | 5.15 |
| 1914-15 | ... | ... | ... | 18.63 | 18.89 | 20.73 |
| 1913-14 | ... | ... | ... | 12.34 | 12.40 | 17.87 |

The rainfall in *rabi* is insignificant.

5. The following table compares the irrigation with the averages of the two previous triennia :—
 Area irrigated :
Kharif, 1916.
Rabi, 1916-17.

| Crop. | | | | AVERAGE OF THE 3 YEARS ENDING | | Irrigation of 1916-17. |
|---------------|-----|-----|-----|-------------------------------|-----------|------------------------|
| | | | | 1912-13. | 1915-16. | |
| | | | | Acres. | Acres. | Acres. |
| <i>Kharif</i> | ... | ... | .. | 706,322 | 694,635 | 715,270 |
| <i>Rabi</i> | ... | ... | ... | 1,556,940 | 1,585,995 | 1,571,459 |
| Total | | | | 2,263,262 | 2,280,630 | 2,286,729 |

Compared with the figures for 1915-16 the area irrigated showed an increase of 2,650 acres. The *kharif* area was more by 63,128 acres while the *rabi* figures were less by 60,478 acres. The *kharif* area was the third highest on record and the *rabi* area the fourth highest.

The total area irrigated—2,286,729 acres—consists of 395,678 acres in old villages and 1,891,051 acres in Colony villages.

6. The net revenue amounted to Rs. 1,41,10,320 (direct and indirect) equivalent to a return of 43.61 per cent. on the Capital Outlay of Rs. 3,23,55,018 incurred to the end of the year.
 Financial results based on Collections :
Rabi, 1: 15-16.
Kharif, 1916.

In the previous year the figures of net revenue and percentage on Capital were Rs. 1,26,50,247 and 39.78, respectively.

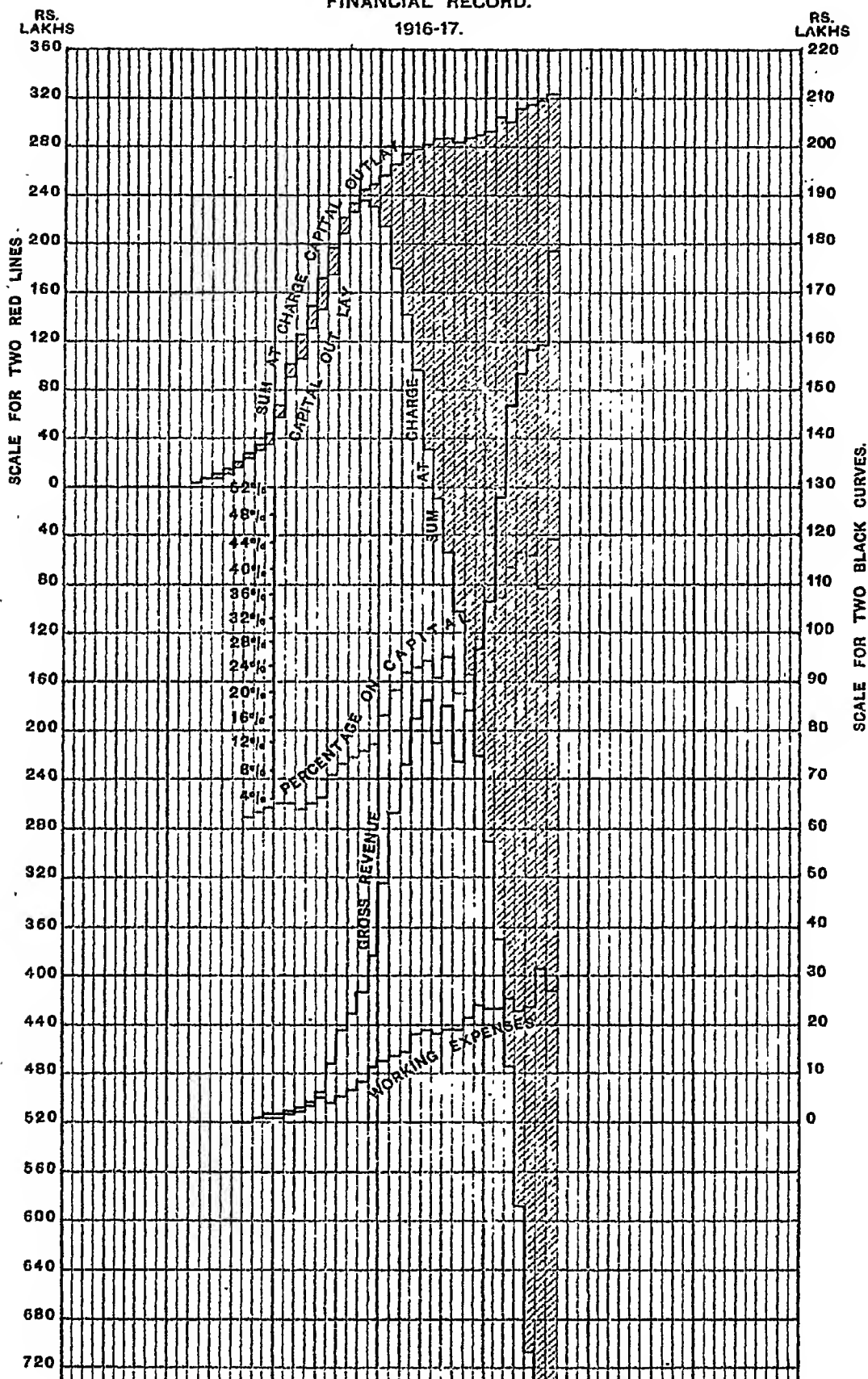
The increase in net revenue in 1916-17 was due to an increase in the area matured in *kharif* 1916 and the record area of *rabi*. 1915-16, the assessment on which was realized during 1916-17.

The accumulated net profits have increased from Rs. 11,40,60,690 to Rs. 12,71,39,012 against a capital of Rs. 3,23,55,018 invested at the close of the year.

LOWER CHENAB CANAL.

FINANCIAL RECORD.

1916-17.

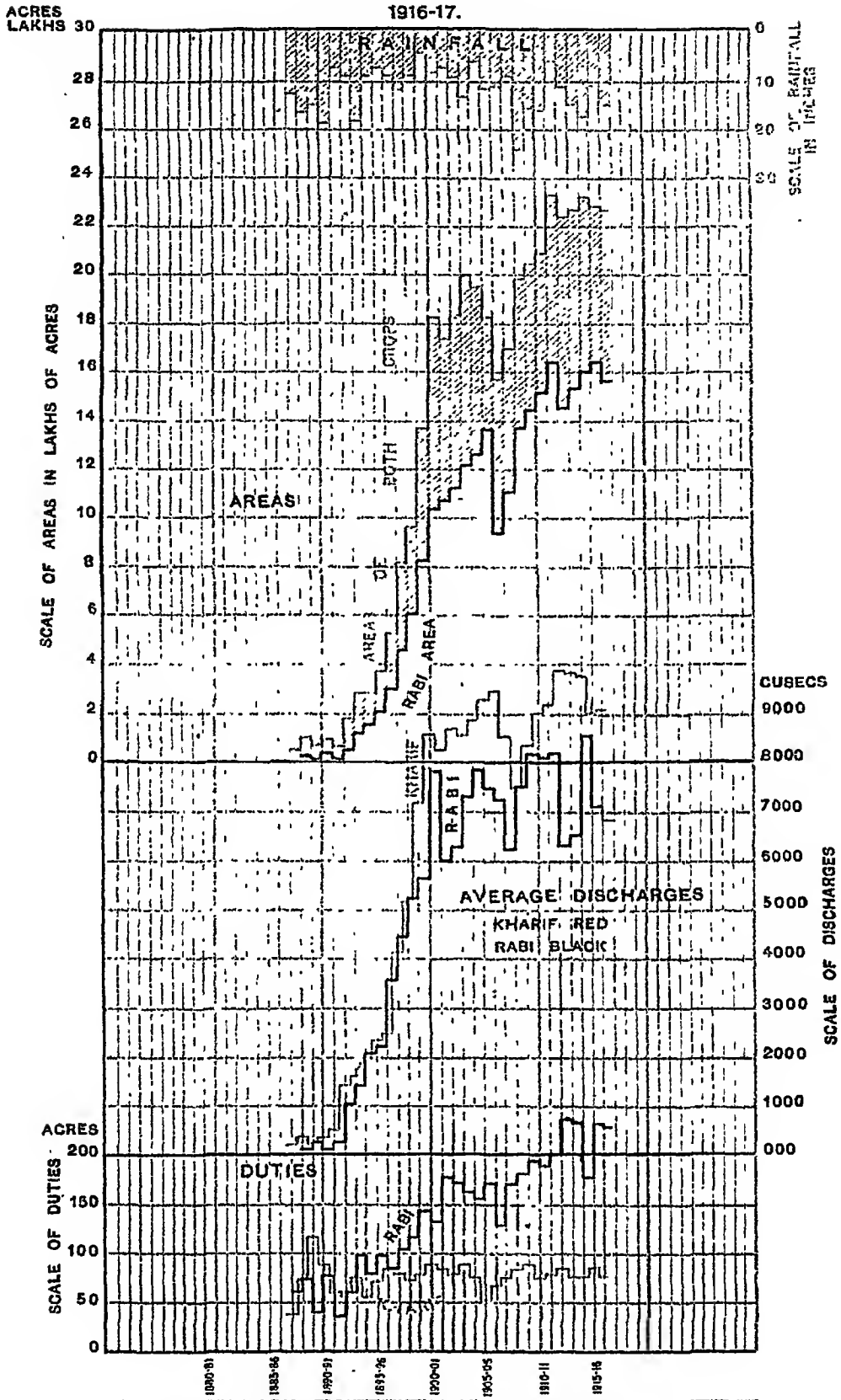


The discharges are measured at canal head and give averages for each crop.
 The duties are derived from these areas and discharges.
 The Rabi winter supply is comparatively high and reliable on this canal.

LOWER CHENAB CANAL.

WORKING RECORD.

1916-17.



N. B.—The intercepts in the red area show the Kharif acreage each year.
 The discharges are measured at canal head and give averages for each crop.
 The duties are derived from these areas and discharges.
 The Rabi winter supply is comparatively high and reliable on this canal.

7. The canal was closed for 44 days (36 days in *kharif* and only 8 days in *rabi*), so that it ran for 321 days during the year (147 days during *kharif* and 174 days during *rabi*). The weather and the insufficient supply in the river gave no opportunity for a closure at canal head during the cold weather. The 10 days closures in May, July and August were ordered for the purpose, of scouring out the flume upstream of head regulator as a preventive to silting in the canal. This practice, however, involves an economic loss of water, and a loss of irrigating efficiency, besides being a somewhat ineffective procedure. It has since been realized that in order to exclude from the canal excessive charges of travelling silt, it is necessary to keep the river bed in front of the canal head automatically scoured to a low level; that this state of affairs can only be secured by the maintenance of a certain minimum afflux through the weir-sluiques; and that this, again, can only be ensured by raising the crest of the weir. The crest of the weir was raised by two feet in five out of its eight bays (having previously been raised by two feet in the other three bays in the year 1911-12) during the winter of 1916-17, but it is probable that further elevation will be found necessary in the near future in order to complete the design on sound hydraulic principles.

The area remitted amounted to 3,145 acres during *kharif* and 63,110 acres during *rabi*, giving percentages of 0.44 and 4.01, respectively, on the area irrigated. Out of 63,110 acres remitted during *rabi* 31,301 were attributed to short supply of water in the river and 22,747 acres to the extensive damage done by hail to the wheat and gram crops in the Lyallpur and Jhang Districts.

The duty earned by the canal was 79 acres in *kharif* and 230 acres in *rabi* as against 73 and 230 acres in the previous year. The distribution of the waters of the Jhelum and Chenab Rivers equitably between the canals dependent thereon was in force for the first time during the *rabi* of 1916-17. The method of rotational turns adopted was, on the whole, fair, but experience has indicated modifications which will be tried next winter. This question of distributing small uncertain quantities of water over thousands of square miles of country is a difficult one and success can only be attained in the light of experience.

The problem of ensuring a rateable distribution of water in such a way as to place all irrigators on an equal footing and thus to distribute the shortage of winter supply over so large an area as to make it imperceptible in any individual holding is receiving careful consideration.

The steps taken to prevent the increase of water-logging in the Hafizabad Tahsil have been attended with much success, large areas have been reclaimed and considerable areas have been safeguarded against harm from this source.

UPPER JHELUM CANAL.

(SUPERINTENDING ENGINEER—MR. H. W. M. IVES.)

1. This year, the thirteenth since construction began, brought the project estimate to a close with a total expenditure of Rs. 4,38,49,947, debited against it at end of the year. The expenditure during the year amounted to Rs. 14,88,828. The removal of the foreshore above the Mangla Regulator was the chief work in the winter of 1916. With an abnormally low river progress on the foreshore was considerable and it would have been completed altogether but for a rise in the river at the end of March which prevented the clearance of part of the foreshore on the right side down to the 857 level. Thus what remains to be cleared of the foreshore consists of No. 3 Tunnel on the right and its girders with a few isolated reefs in this vicinity. Towards the centre and left the clearance was very thorough and all was cleared down to 857.00 level. During the year 6½ lakhs c.ft. of rock and wet material was removed from the foreshore. The excavation done in the Mangla Cut was nearly 48 lakhs c.ft. chiefly in rock and clay stone in the head reach, and to a large extent consisting of the removal of the big slip that occurred in August 1915, which was noticed in the last year's report.

Capital account:
Kharif, 1916.
Rabi, 1916-17.

Several of the distributaries on the main line and Gujrat Branch were completed.

The training works at the tail of the canal where they are connected with those upstream of the Khanki Head Works (Lower Chenab Canal) on the right bank of the Chenab river were completed. The very necessary weir across the Bhimber Diversion Channel was sanctioned and three-fourths completed.

2. The expenditure of Rs. 44,399 was incurred chiefly on providing release gear for dropping the Canal gates at Suketar I and II and Jabba; raising crests of undersluices at Suketar I and II and Jabba; Mangla Out, part E; approach and patrol roads in the Mangla Division, protection below tail fall at R. D. 418,500 feet, main line; fixing mattress in the bed of Bhimber Diversion; and petty works in connection with improvements at Mangla.

3. Expenditure of Rs. 418,781 was incurred on the maintenance and watching of canal banks, strengthening weak reaches, maintenance of buildings, Canal drains and plantation, protection downstream of Suketar II and Jabba level crossings, and revetment of the canal in front of the Mangla Regulator.

4. The following table compares the figures of rainfall with the average of the last seven years :—
Nature of Seasons and state of Demand
and Supply.
Kharif, 1916.
Rabi, 1916-17.

| Station. | | | | | 1916-17. | Average. |
|------------|-----|-----|-----|-----|----------|----------|
| | | | | | Inches. | Inches. |
| Mangla | ... | ... | ... | .. | 39.05 | 24.30 |
| Pauranwala | ... | ... | ... | ... | 35.00 | 12.10 |
| Dinga | ... | ... | ... | ... | 29.12 | 15.18 |
| Kirariwala | ... | ... | ... | ... | 28.10 | 9.30 |
| Mand | ... | ... | ... | ... | 20.65 | 7.40 |

There was heavy rainfall during *kharif* but no winter rains.

This was the first year of irrigation from this canal. The canal supply reached five-eighths of its maximum discharge during the year. A large new canal with high embankments requires a cautious increase of supply. With small periodical increments the formation of berms kept pace with the increase in supply and strengthened the banks.

This year was also the first during which the waters of three rivers (Jhelum, Chenab and Ravi) were distributed amongst the connected canals (Upper Jhelum, Lower Jhelum, Upper Chenab, Lower Chenab and Lower Bari Doab Canals) by rotational turns. The rotation programme was arranged by Chief Engineer after consultation with the Superintending Engineers of the canals concerned.

Area irrigated.
Kharif, 1916.
Rabi, 1916-17.

5. The irrigation effected was :—

| | AREA IRRIGATED. | | | AREA ASSESSED. | | |
|-------------------|-----------------|-------------|---------|-----------------|---------------|---------|
| | <i>Kharif</i> . | <i>Rabi</i> | Total. | <i>Kharif</i> . | <i>Rabi</i> . | Total. |
| Main Line ... | 13,699 | 19,607 | 33,306 | 13,502 | 19,007 | 32,509 |
| Gujrat Branch ... | 28,714 | 55,585 | 84,299 | 28,510 | 53,172 | 81,682 |
| Total ... | 42,413 | 75,192 | 117,605 | 42,012 | 72,179 | 114,191 |

The development of irrigation has not been as rapid as was anticipated in the Project forecast. It was expected that an area of 245,000 acres would be irrigated in 1916-17, but this expectation was not realized chiefly because irrigation commenced a year later than was anticipated. The heavy rainfall during *khari*f and an abnormally low river during *rabi* which necessitated long closures on new channels due to the introduction of rotational canal turns also contributed towards the failure to reach the forecast.

6. The gross income from all sources amounted to Rs. 83,631 and the working expenses to Rs. 6,40,795, resulting in a loss of Rs. 5,57,164 or 1.27 per cent. on the capital invested. This is attributable to the fact that this was the first irrigation year on this canal and the water rates were collected for *khari*f crop only. The working expenses were also heavy and this was to be expected on the new canal which needed larger expenditure on staunching and consolidating the banks of the canals and its distributives in the early days of irrigation in order to admit of the required supply of water being run without causing any damage to banks. It should be noted, however, that the Upper Jhelum Canal is part of the triple canals and that the expenditure incurred on it is mostly on behalf of the other two units and therefore the percentage of profit based on local income, working expenses and capital expenditure is not a fair indication of the utility of the Upper Jhelum Canal.

7 (a) Most of the tramway material made available for sale or transfer, due to completion of works, was sent to Mesopotamia and a fair proportion of surplus plant was also disposed of during the year.

(b) Special arrangements made for dealing with the timber traffic down the Jhelum river enabled the raftsmen to get all their timber down, in spite of the abnormally low river, and in all some 127,000 sleepers were taken out at Chaugar and removed later by the Canal Railway.

(c) The names of the Divisions on this Canal were changed from I, III, IV and V to Mawla, Jhelum, Phalia and Gujrat Divisions, respectively.

LOWER JHELM CANAL.

(SUPERINTENDING ENGINEER—MR. W. P. SANGSTER, C.I.E.)

1. The expenditure (direct and indirect) amounted to Rs. 27,399, but the recovery of Rs. 2,140 from cultivators on account of acreage rate, and a credit of Rs. 31,706 under the suspense account (stock issues to works) and receipts of Rs. 22,147 on capital account, reduced it to a minus figure of Rs. 32,594. This brought the total outlay to the end of the year to Rs. 1,59,33,168. The expenditure was incurred chiefly on Superintending Engineer's office and quarters at Sargolha, and the remodelling of the Mithalak distributary.

2. Expenditure amounting to Rs. 72,463 was incurred chiefly on constructing a combined water-course for the Civil Station and the Government Engineering School at Rasul; remodelling two bays of the Head Regulator at Rasul; obtaining gates for the Mona Distributary; providing caissons for remodelling the Head Regulator; and raising a girder skew bridge on the North-Western Railway over the Mithalak distributary.

3. Expenditure to the extent of Rs. 2,91,635 was incurred on the annual maintenance of channels, masonry works, buildings; and on repairs to Bay No. 7 downstream floor and talus of Bay No. 2, Rasul Weir; filling up scour holes below the undersluices; stone filling at Groynes Nos. 6 and 7 upstream of the weir; levelling 30 feet of the stone berm below the weir; and repairs to Groyne No. 7 upstream of Rasul Weir.

Nature of Seasons and state of Demand
and Supply:
Kharif, 1916.
Rabi, 1916-17.

4. The rainfall during the year was as follows as compared with that of the previous three years :—

| District. | Season. | YEAR. | | | |
|-----------|-------------------|----------|----------|----------|----------|
| | | 1913-14. | 1914-15. | 1915-16. | 1916-17. |
| Shahpur | <i>Kharif</i> ... | 12.84 | 17.02 | 3.96 | 14.36 |
| | <i>Rabi</i> ... | 8.23 | 4.22 | 0.56 | 1.78 |
| Total | ... | 16.07 | 21.24 | 4.52 | 16.14 |
| Jhang | <i>Kharif</i> ... | 13.56 | 12.40 | 1.98 | 9.77 |
| | <i>Rabi</i> ... | 3.09 | 2.33 | 0.36 | 0.85 |
| Total | ... | 16.75 | 16.33 | 2.34 | 10.65 |

The rainfall was above the average during *kharif* and below the average during the *rabi*. No rain fell between first week in October and last week in March, except a small quantity near the head of the canal. On April 10th there occurred at the tail of the canal, a hailstorm of exceptional severity which affected about 20 small villages, necessitating the giving of half remissions to above 1,100 acres. During *kharif* canal water was ample and there were no insect pests or other calamities. The area sown was above the normal and the yield good. The area remitted was unusually low. During *rabi* rotational closures were started practically for the first time on this canal and the people felt them keenly.

The shortage in supply due to low river did not begin to make itself felt until late in December, and the areas sown with wheat, barley, and *toria* were well up to normal. Demand during the last three months of the *rabi* season, when the available supply was persistently low, was intensely keen. Second waterings were still being given after 15th March to some fields.

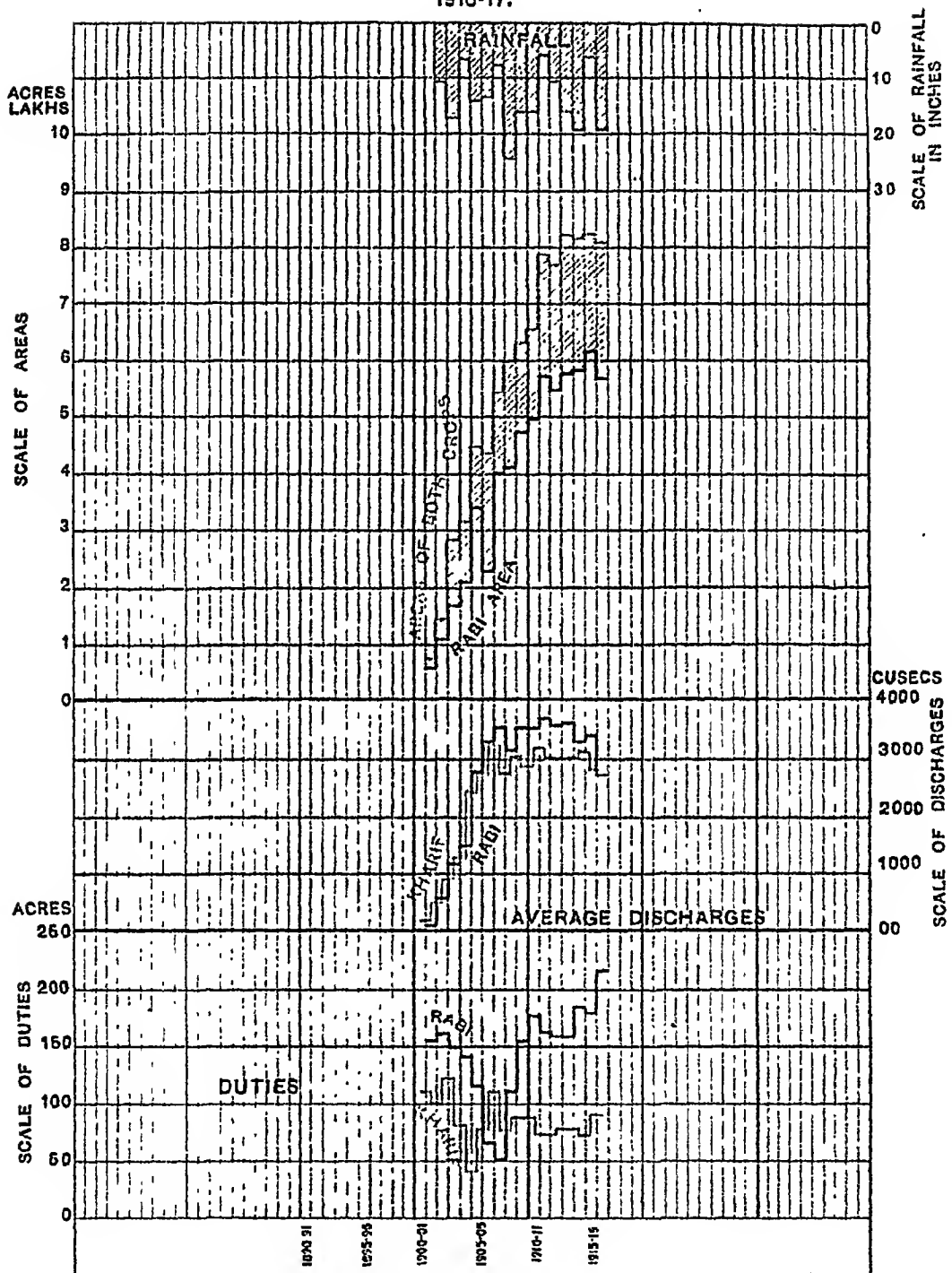
5. The canal was closed for 15 days during *kharif* owing to slackness of demand for water and special repairs to works. The area remitted was 6,371 acres including 2,106 acres remitted under Tenancy Rules. About half of this was due to short supply in *rabi* and the balance to other causes.

6. The areas irrigated and assessed compare as follows with the corresponding figures for the average of the preceding triennium :—

| District. | AVERAGE OF THE 3 YEARS ENDING 1915-16. | | | 1916-17. | | |
|-------------------------|---|--------------|---------|----------------|--------------|---------|
| | <i>Kharif.</i> | <i>Rabi.</i> | Total. | <i>Kharif.</i> | <i>Rabi.</i> | Total. |
| <i>Irrigated areas.</i> | | | | | | |
| Gujrat | 4,363 | 8,870 | 13,103 | 4,067 | 7,783 | 11,850 |
| Shahpur | 189,814 | 494,934 | 634,748 | 191,563 | 469,871 | 664,134 |
| Jhang | 39,888 | 88,600 | 128,488 | 41,307 | 87,110 | 128,477 |
| Total | 234,065 | 592,334 | 826,399 | 236,937 | 564,764 | 804,701 |
| <i>Assessed areas.</i> | | | | | | |
| Gujrat | 4,283 | 8,781 | 13,064 | 4,053 | 7,705 | 11,816 |
| Shahpur | 181,935 | 487,830 | 669,735 | 192,113 | 465,440 | 657,553 |
| Jhang | 35,947 | 86,136 | 122,143 | 41,247 | 85,666 | 126,913 |
| Total | 222,165 | 582,807 | 804,972 | 237,413 | 558,871 | 796,284 |

LOWER JHELUM CANAL.

WORKING RECORD.
1916-17.

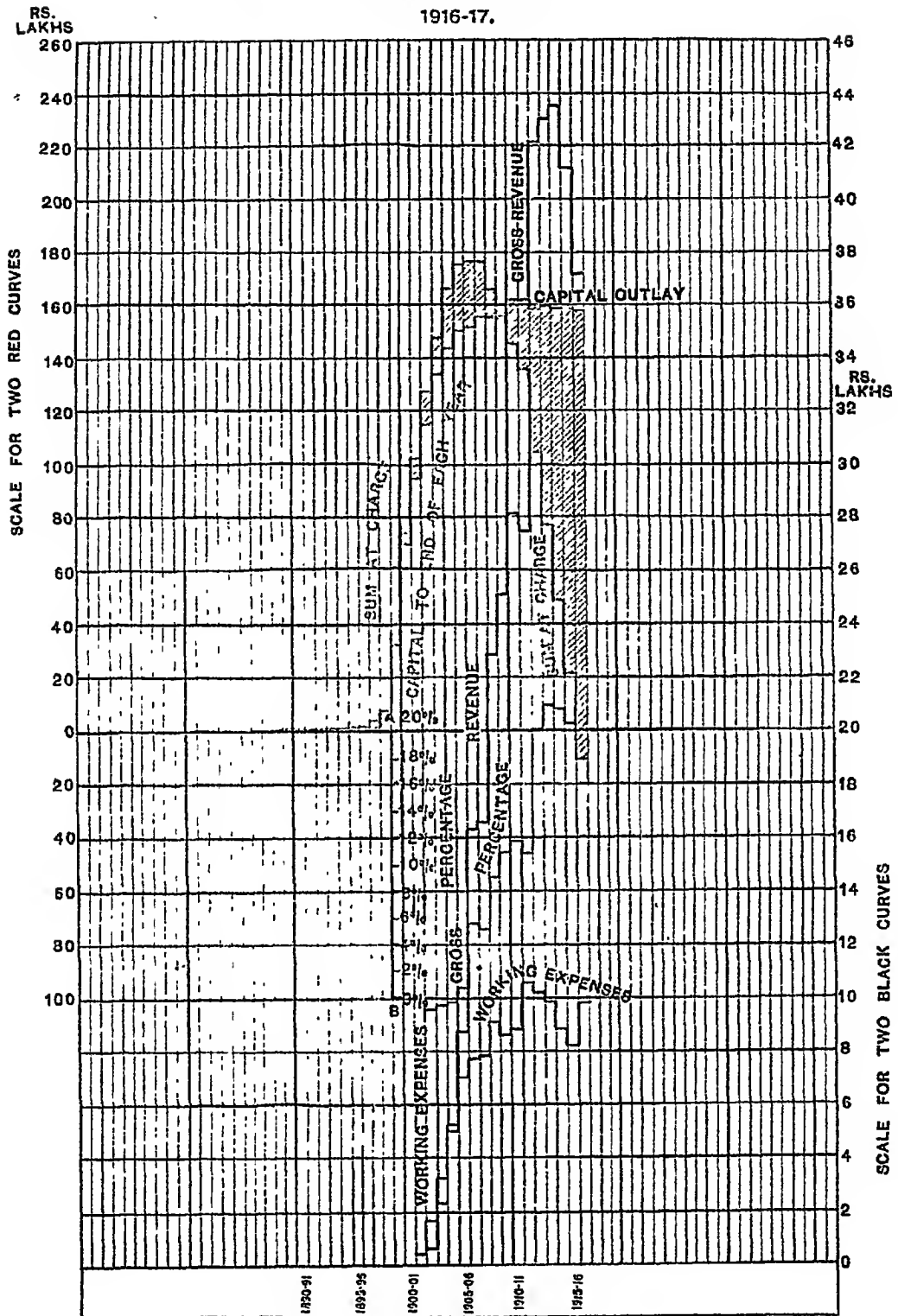


N.B.—The intercepts in red area give the Kharif irrigation each year. The discharges are measured at mile 14 of the main canal and give averages for each crop.
The duties are derived from these areas and discharges.

LOWER JHELM CANAL.

FINANCIAL RECORD.

1916-17.



N.B.—The intercepts in the red area show arrears of interest which, added to the capital, give the sum at charge.

The intercepts in the blue area give the accumulated profits.

The scheme was commenced in earnest in 1898-99 and opened in 1901. Until 1905-06 the canal did not pay any interest on its capital cost this being due to free remissions of water rates on new irrigation.

The increase in area irrigated in *kharij* was due to an ample supply of water assisted by good rainfall. The reason for the decrease in *rabi* was the unprecedented drought and abnormally low rivers which necessitated rotational working of five canal systems on a definite programme of an experimental type. Out of the total area of 804,761 acres irrigated 405,920 acres were in proprietary villages and 398,841 acres in colony villages.

7. The gross receipts (direct and indirect) amounted to Rs. 47,38,593, the working expenses to Rs. 9,83,962 and the net revenue to Rs. 37,54,631, giving a return of 23.57 per cent. on the capital outlay to the end of the year. This return was about 8 per cent. more than that of the preceding year due to—

Financial results based on collections :
Rabi, 1915-16.
Kharij, 1916.

- (a) a decrease in the capital outlay by about Rs. 33,000 as explained in paragraph 1 above.
- (b) increase in the area irrigated during *kharij* 1916 and *rabi* 1915-16, revenue on which was collected during the year.
- (c) very small area having been affected by the failure of crops and the consequent grant of very low remissions.

The figures for the year 1916-17 and the average of the preceding three years are compared below :—

| Item. | | | | | Average triennium, 1913—16. | 1916-17. |
|---------------------------|-----|-----|-----|-----|-----------------------------|---------------|
| <i>Direct receipts.</i> | | | | | Rs. | Rs. |
| Occupiers' rates | ... | ... | ... | ... | 26,74,820 | 29,09,746 (a) |
| Miscellaneous receipts | ... | ... | ... | ... | 61,801 | 64,164 (b) |
| Total direct receipts | ... | ... | ... | ... | 27,36,621 | 29,73,910 |
| Indirect receipts | ... | ... | ... | ... | 15,27,350 | 17,64,683 (c) |
| Total direct and indirect | ... | ... | ... | ... | 42,63,971 | 47,38,593 |
| Charges to revenue | ... | ... | ... | ... | 8,94,993 | 9,83,962 (d) |
| Net revenue | ... | ... | ... | ... | 33,68,978 | 37,54,631 |
| Percentage on capital | ... | ... | ... | ... | 21.13 | 23.57 |
| Net revenue less interest | ... | ... | ... | ... | 28,30,722 | 32,41,710 |
| Percentage on capital | ... | ... | ... | ... | 17.76 | 20.34 |

- (a) The increase is due to causes explained in paragraphs 6 and 7 above. The average rate per acre assessed works out to Rs. 3.65 against Rs. 3.32 for the previous triennium.
- (b) The increase was due to larger realizations from water power and miscellaneous other receipts.
- (c) The increase follows the increase under (a) above.
- (d) The working expenses were about one lakh more than the average of the last three years. The cause of this increased expenditure is being enquired into. The rate per acre of area assessed was 1.24 against 1.11 in the preceding triennium.

8. The agricultural and other conditions of the year have been described in paragraph 4 above. The introduction for the first time of the system of rotational closures lends a special interest to the year under review. The relative performances of the last five *rabi* seasons may be compared by the following values of Δ in the Sargodha Division :—

| | | | | | Δ |
|-----------------------|-----|-----|-----|-----|----------|
| <i>Rabi</i> , 1912-13 | ... | ... | ... | ... | 2.05 |
| " 1913-14 | ... | ... | ... | ... | 1.82 |
| " 1914-15 | ... | ... | ... | ... | 1.85 |
| " 1915-16 | ... | ... | ... | ... | 1.96 |
| " 1916-17 | ... | ... | ... | ... | 1.76 |

The fact that Δ for the last *rabi* is the lowest is significant, when it is remembered that there was a complete failure of the winter rains, and that the falling off in area sown was in such crops as gram, sonji and maina which require less water than the staple crops. Enquiry showed that the wheat outturn was, if anything, above the normal. The *rabi* delta of 1916-17 indicates less waste of water than in previous years, but it is still high.

(b) Proposals for the remodelling of the entire canal system are being framed by the Special Project Division created for the purpose. Remodelling work was actually begun on the Mithalak distributary. The introduction of a notched fall in the canal in place of the old raised crest below the off-take of this channel appears to have had a beneficial effect upon its persistent tendency to silt. At the time of writing, the channel is drawing, gauge for gauge, the same supply as after it was silt-cleared last November, and since then no silt clearance has been found necessary.

(c) Irrigation on the Sulki Branch is steadily improving. This branch serves the Ara Assessment Circle, the land of which does not lend itself easily to canal irrigation. This is due to a very hard crust of surface soil which forms after it has been watered.

UPPER SUTLEJ DIVISION INUNDATION CANALS.

(SUPERINTENDING ENGINEER—MR. F. W. K. YEOMAN.)

1. The expenditure amounted to Rs. 1,465 and was incurred mainly on constructing subordinates rest-houses at Bunga Hayat, Ladhewal and Kalewal.

Capital accounts :
Kharif 1916
Rabi 1916-17.

2. Expenditure of Rs. 13,928 was incurred chiefly on remodelling the head of Pakpattan and Faridpur distributaries ; widening the platform and raising the crest of the Hujra and Shah Yaka and Dhulliana Regulators ; widening, regrading and extending the Dhingshah distributary ; and the reduction of outlets on the Wanawala distributary.

Extension and improvement.

3. Expenditure incurred was Rs. 2,57,504 which, in addition to ordinary maintenance and silt clearance of channels, was incurred on the following works :—Excavating the Nijabat head reach of the Sohag Canal so as to make it independent of the Khizra reserve head of the Khanwah Canal and the Khizra head reach of the Lower Sohag Canal ; regrading and improving the Atari and Haveli distributaries ; and excavating the three diversion cuts in the head reach of the Katora Canal, thereby shortening its length by about 2 miles.

Maintenance and repairs.

4. The gross income amounted to Rs. 6,08,794 and working expenses to Rs. 4,41,186, showing a net revenue of Rs. 1,67,396 or 9.19 per cent. on the capital invested. The previous percentage was 18.50.

Financial results based on collections :
Rabi 1915-16.
Kharif 1916.

5. The following table compares the irrigation of this year with the averages of the two previous triennia :—

| Crop. | AVERAGE OF THREE YEARS ENDING | | | | 1916-17. | |
|------------|-------------------------------|----------------|------------------|----------------|------------------|----------------|
| | 1912-13. | | 1915-16. | | Gross irrigated. | Area assessed. |
| | Gross irrigated. | Area assessed. | Gross irrigated. | Area assessed. | | |
| | Acres. | Acres. | Acres. | Acres. | Acres. | Acres. |
| Kharif ... | 160,404 | 122,092 | 107,045 | 166,378 | 162,560 | 142,355 |
| Rabi ... | 143,142 | 143,142 | 166,193 | 166,193 | 160,501 | 160,591 |
| Total ... | 293,546 | 265,234 | 333,238 | 332,571 | 313,151 | 302,947 |

The net area assessed exceeded by 36,713 acres, the average of the triennium ending 1912-13, and was less by 19,624 acres than the average of the three

years ending 1915-16, which included the record year of 1914-15. This is quite satisfactory, taking into consideration the fact that the river remained abnormally low throughout the month of May, thereby delaying the date of opening of the canals by more than two weeks.

6. (a) The following table shows the dates of opening and closing of the canals together with the corresponding dates of the previous year :—

| Name of canal. | DATE OF OPENING. | | DATE OF CLOSING. | | NUMBER OF DAYS CANAL WAS IN FLOW. | | REMARKS. |
|----------------|---------------------|--------------------|----------------------|----------------------|-----------------------------------|------|----------|
| | 1915. | 1916. | 1915. | 1916. | 1916. | 1915 | |
| Katora | Forenoon, 29-5-16. | Forenoon, 16-5-15. | Forenoon, 9-11-15. | Afternoon, 16-10-15. | 164 | 160 | |
| Khanwah | Forenoon, 30-5-16. | Forenoon, 11-5-15. | Afternoon, 30-10-15. | Afternoon, 25-10-15. | 154 | 109 | |
| Upper Sohag | Forenoon, 29-5-16. | Forenoon, 9-5-15. | Afternoon, 30-10-15. | Afternoon, 14-10-15. | 155 | 150 | |
| Lower Sohag | Afternoon, 31-5-16. | Forenoon, 10-5-15. | Afternoon, 24-9-15. | Afternoon, 11-10-15. | 110 | 155 | |

(b) During this year also, as in the previous year, several important works of improvement calculated to increase the area of irrigation were introduced. The river left both the heads of the Lower Sohag Canal high and dry after a flood in the month of August. Steps were taken to excavate the Khinwa head reach which proved to be a great success, as it has increased the supply in the canal for 1917-18 by at least 50 per cent. In addition, a diversion cut was excavated at a cost of Rs. 2,500 to induce the river to adopt a course favourable for the two heads which were left stranded and this cut has also worked quite satisfactorily so far. A further improvement was the reduction of outlets on the Wanawala distributary which enable the tail reach to get its proper share of the water, which it had not done for several years. Necessary steps for giving sufficient supplies of water to the tails of several other channels also were successfully taken during the year.

SIDHNAI CANALS (INCLUDING THE KORANGA, FAZIL SHAH AND ABDUL HAKIM SUBSIDIARY CANALS).

(SUPERINTENDING ENGINEER—MR. A. R. MURRAY.)

1. Expenditure of Rs. 4,529 (direct and indirect) was incurred on stock transactions.

Capital account:
Kharif 1916.
Rabi 1916-17.

Settler's account.—The sum of Rs. 31-12-0 shown as received during the year 1915-16 on account of repairs to bridges on Sidhnai Canal has further increased to Rs. 236-14-6 during the year. Recoveries are being made by the Deputy Commissioner, Multan.

2. The expenditure was Rs. 11,006 against Rs. 10,516 of the previous year, and was incurred on remodelling Riazabad Minor, Lalera Minor, Chauparhatta distributary and Vinoi distributary, and constructing subordinates' rest-house at Sidhnai, Sub-Overscer's quarters at Jodhpur and other works of a petty nature.

3. The expenditure amounted to Rs. 51,873 against Rs. 43,062 of the preceding year, and was incurred on the ordinary annual repairs, silt clearance and strengthening of canal and distributaries.

Nature of seasons and state of demand and supply:
Kharif 1916.
Rabi 1916-17.

4. The total rainfall at Kabirwala was 6.95 inches (5.35 inches in *kharif* and 1.60 inches in *rabi*) against an average of 6.26 inches.

The Ravi rose very late and water did not enter the canal till the 23rd June. The supply was low until the 30th June. Throughout July irrigation was much interrupted by frequent occurrence of floods, which necessitated the closing off of the canals to exclude silt. The supply was good in September and October, and fair in November, giving the *rabi* a good start.

The very late arrival of the water is noteworthy, but it is useful to remember that it was later in 1908, and in 1898 water arrived on 21st July. In these two years the late opening cannot be attributed to the influence of the Triple Canals.

There was no water in the river after 12th December 1916, but by this date about one-eighth of the *rabi* area was estimated to have had a second watering.

5. The following table shows the irrigation effected on the whole system as compared with the averages of the two previous triennia:—

| Crops. | | | AVERAGES OF THREE YEARS ENDING | | 1915-16. | 1916-17. |
|--------|-----|-----|-----------------------------------|----------|----------|----------|
| | | | 1912-13. | 1915-16. | | |
| | | | Acres. | Acres. | Acres. | Acres. |
| Kharif | ... | ... | 111,574 | 127,386 | 117,999 | 114,933 |
| Rabi | ... | ... | 138,526 | 153,119 | 152,151 | 183,623 |
| Total | ... | ... | 250,100 | 280,505 | 270,150 | 298,556 |

The percentage of failed crops was 13·96 in *kharif* and 17·7 in *rabi* against 16·46 in *kharif* and 18·06 in *rabi* of the preceding year. This is not unsatisfactory in view of the late arrival of water and absence of winter rains during the *rabi* maturing period.

6. The total income from all sources amounted to Rs. 5,89,749 against Rs. 8,32,779 of the preceding year. Working expenses amounted to Rs. 1,59,012 against Rs. 1,46,592 in 1915-16. The net income amounted to Rs. 4,30,737, or 32·25 per cent. on the capital outlay, against Rs. 6,86,187, or 51·5 per cent. in the preceding year. The decrease is due to the *rabi* area of 1915-16, assessments on which were realized in the year under review being far short of that of the year 1914-15 owing to deficiency in river supply.

The uncollected balance of the assessment of occupiers' rates amounted to Rs. 3,128.

7. The total area irrigated is the second highest on record, and the year may, therefore, be said to have been a successful one.

The question of the distribution of Ravi water between the Lower Bari Doab and the Sidhnai Canals has been satisfactorily settled.

During the course of the winter monthly discharge observations of the river Chenab at Haveli and Shershab were made with the object of putting the data for the Haveli Project on a firmer footing.

The Executive Engineer has brought to notice the very wasteful system of flooding for the ensuing *rabi* crops, which is in vogue on the canal. The compartment or *khal kiari* rules are almost universally ignored. Areas of 3 or 4 acres, consisting of 4 or 5 fields, are irrigated by leading the water through one field into the other, the depth of watering being probably 6 to 8 inches. He calculates that the *rabi* area might have been $1\frac{1}{2}$ times greater than it was, or assuming that the available area was all irrigated, about two-thirds of the whole might have received a second watering instead of only one-eighth.

No new works of any magnitude are contemplated.

INDUS INUNDATION CANALS.

(SUPERINTENDING ENGINEER—MR. A. R. MURRAY.)

1. The expenditure amounted to Rs. 9,045 compared with Rs. 1,51,024 during the preceding year, and was incurred on lowering the bed of the Manka Canal and on the scheme for giving a perennial supply of water for irrigation to the Dera Ghazi Khan Municipality. The former work is complete and the latter practically so.

Capital account:
Kharif 1916,
Rabi 1916-17.

2. Rupees 1,15,320 were spent compared with Rs. 1,17,195 during the preceding year. The following were the more important works in progress:—Constructing a second ring bund behind the Kotla Bund; new head reach, Fazalwah Canal; Chabri flood embankment; new head reach, Kasturi Canal; Dhan Sikhani flood embankment; a groyne across the Droman Creek; Kotla Ring Bund No. 3 and Sahiban and Chibri Ring Bunds; and an extension of the Panjtanwala groyne for increasing the supply of water to Nur Dhuandi and Gamun Canals.

Extensions and improvements

3. The expenditure amounted to Rs. 1,37,316 against Rs. 1,95,703 in the previous year, and was incurred on ordinary annual maintenance and repairs, silt clearance of canals, strengthening of certain flood embankments and other miscellaneous works.

Maintenance and repairs.

4. The average rainfall during *kharif* was 5.71 inches and during *rabi* 0.29 inches against an average of 3.77 inches and 1.66 inches respectively. The river Indus was late in rising, but remained fairly normal after the first week in June. Demand was keen. Some damage to crops resulted from severe frost during November and paucity of rainfall during the *rabi* season.

Nature of seasons and state of demand and supply:
Kharif 1916
Rabi 1916-17

The following statement shows the period during which canals were in flow:—

| Name of canal. | Dates of | | Number of days canal was in flow. |
|-------------------|-------------------|----------------------|-----------------------------------|
| | Opening. | Closing. | |
| Massuwah | 3rd June 1916 .. | 10th September 1916. | 99 |
| Fazalwah | 16th May 1916 | 29th October 1916. | 166 |
| Manka | 25th March 1916 | 23rd October 1916. | 213 |
| Shoria | 1st May 1916 ... | 19th October 1916. | 166 |
| Kasturi | 17th April 1916 | 24th September 1916. | 148 |
| Dhingana | 9th April 1916 .. | 10th October 1916. | 171 |
| Chibri | 27th May 1916... | 11th October 1916. | 130 |
| Sahiban | 20th May 1916... | 11th October 1916. | 121 |
| Gamun | 15th May 1916... | 29th September 1916. | 117 |
| Nur Dhuandi. | 3rd May 1916 ... | 27th March 1917 | 328 |
| Dhuandi Kutab ... | 27th April 1916 | 22nd October 1916 | 175 |
| Kadma | 14th May 1916... | 1st November 1916. | 171 |

The Manka Canal was opened early with a low supply to enable irrigation in the Civil Station of Dera Ghazi Khan to be carried out. The Nur Dhuandi Canal flowed almost the whole winter with a small but valuable supply.

5. The following table compares the area assessed with the average areas of the previous two triennia :—

Area irrigated :
Kharif 1916.
Rabi 1916-17.

| Name of crop. | | | | AVERAGE OF THREE YEARS ENDING | | 1916-17. |
|---------------|-----|-----|-----|-------------------------------|----------|----------|
| | | | | 1912-13. | 1915-16. | |
| | | | | Acres. | Acres. | Acres. |
| Kharif | ... | ... | ... | 132,553 | 115,205 | 140,470 |
| Rabi | ... | ... | ... | 80,217 | 68,948 | 67,910 |
| Total | | | | 212,770 | 179,153 | 208,380 |

The gross and net areas irrigated during *kharif* were 179,941 and 140,470, respectively, against 138,124 and 102,147 acres of the preceding year.

During *rabi* the gross and net areas irrigated were 85,217 and 67,910 against 97,517 and 79,882, the decrease being due to earlier fall in the Indus.

6. The total income from all sources was Rs. 5,28,309 against Rs. 4,37,175 in 1915-16, and the total expenditure under all heads Rs. 3,98,604 against Rs. 4,41,584. The net profit was, therefore, Rs. 1,29,705 against a deficit of Rs. 4,409 in the preceding year, and an average profit of Rs. 43,786 in the previous triennium.

The uncollected balance of the assessment of occupier's rate was Rs. 43,271.

The percentage on the capital outlay during the year was 4.35.

7. The results of the year's operations were, on the whole, satisfactory, the gross area irrigated being the third largest on record

The river continued to give trouble at the head of the Dhundi Kutab Canal and the head regulator was engulfed. Erosion here has been very persistent for many years and so long as the westward drift continues it must cause much anxiety and expense.

Some erosion took place at the head of the Manka Canal. This canal also suffered from breaching due to hill torrents.

The principal works of importance under contemplation are :—

- Amalgamating Sohan Branch of Nur Dhundi Canal with Gamun Canal in order to improve irrigation on both.
- Constructing the Aquilpur Minor. This work has been sanctioned, but is held in abeyance for want of funds.
- Constructing new head reach for the Dhundi Kutab Canal.

Minor Irrigation Works.

SHAHPUR IMPERIAL (INUNDATION) CANALS.

(SUPERINTENDING ENGINEER—MR. W. P. SANGSTER, O.I.E.)

Capital account :
Kharif 1916.
Rabi 1916-17.

Extensions and improvements.

Maintenance and repairs.

1. No expenditure was incurred under this head.

2. No expenditure was incurred during the year.

3. Expenditure to the extent of Rs. 18,939 as against Rs. 25,157 in the previous year was incurred on silt clearance and maintenance and repairs.

4. The rainfall was 20·08 inches against 3·53 inches in the previous year. During *kharif* the rainfall was 18·66 inches and during *rabi* 1·42 inches. Of the *kharif* rainfall there was 0·15 inches in April, 0·68 inches in May, 2·95 inches in June, 5·34 inches in July, 8·26 inches in August, and 1·28 inches in September. Of the *rabi* rainfall there was 0·92 inches in October, 0·06 inches in December 1916, and 0·44 inches in March 1917; the months of November 1916, January and February 1917 were dry.

The canals were opened during April 1916 and were closed early in September 1916. Although the supply in the river was low, yet the canals were running satisfactorily.

On the 26th April 1917 there was a hailstorm which spoiled some crops, but the loss was not as much as it was in the previous two years. A total area of 477 acres was remitted.

5. The irrigation of the year compares as follows with the averages of the two previous triennia :—

| Season. | | | | | Average for the three years ending | | Actual for 1916-17. |
|---------|-----|-----|-----|-----|------------------------------------|----------|---------------------|
| | | | | | 1912-13. | 1915-16. | |
| | | | | | Acres. | Acres. | Acres. |
| Kharif | ... | ... | ... | ... | 14,208 | 15,880 | 19,683 |
| Rabi | ... | ... | ... | ... | 18,238 | 23,420 | 27,086 |
| Total | | | | | 32,536 | 38,750 | 46,769 |

(a) The area successfully matured and assessed was 43,981 acres as against 34,458 acres, the average of the previous triennium. The increase is mostly due to the favourable condition of the river and timely rainfall during the *rabi* season.

(b) Revenue was remitted on 1,788 acres of which 1,581 acres were remitted on account of bad germination, 44 acres due to high supply causing flooding of fields, and 163 acres due to insects and blight.

6. The gross revenue realized amounted to Rs. 1,15,018 and working expenses to Rs. 47,175, leaving a net revenue of Rs. 67,843, which is equivalent to a return of 31·42 per cent. on Rs. 2,15,914, the capital outlay up to date.

Details compare as follows with the average for the preceding triennium :—

| Details. | | | | | Average for the three years ending 1915-16. | Actual for 1916-17. |
|--------------------------------------|------|-----|-----|-----|---|---------------------|
| | | | | | Rs. | Rs. |
| Receipts, direct | ... | ... | ... | ... | 80,905 | 80,343 |
| Receipts, indirect | ... | ... | ... | ... | 17,776 | 34,672 |
| Total | | | | | 1,08,681 | 1,15,018 |
| Working expenses | .... | ... | ... | ... | 52,686 | 47,175 |
| Net revenue | ... | ... | ... | ... | 56,015 | 67,843 |
| Percentage of net revenue on capital | ... | ... | ... | ... | 25·94 | 31·42 |

The increase is due to timely rainfall and favourable condition of the river.

General remarks.

7. The canals began and ceased to flow on the following dates :—

| | Began to flow. | Ceased to flow. |
|---------------------------|---------------------|------------------------|
| Eastern Station Canal ... | 16th April 1916 ... | 20th September 1916. " |
| Western Station Canal ... | 20th April 1916 .. | 19th September 1916. |
| Sahiwal Canal ... | 21th April 1916 ... | 20th September 1916. |

The return of 31.42 per cent. on the capital cost for the year under review against 22.68 per cent for the previous year, is more than satisfactory.

GHIAGGAR CANALS.

(SUPERINTENDING ENGINEER—MR. G. O. LAURIE.)

1. There was no expenditure under this head during the year. The capital outlay at the end of the year, therefore, remained the same as at end of the previous year, viz., Rs. 6,61,571,—Imperial, Rs. 3,76,129; Contribution, Rs. 2,85,442.
Capital account—
Kharif 1916
Rabi 1916-17
2. Expenditure was Rs. 2,632, i.e., Rs. 1,999 under "Imperial" and Rs. 633 under "Contribution," and was incurred on petty works of improvement.
Extensions and improvements
3. Expenditure was Rs. 6,936 under "Imperial" and Rs. 1,814 under "Contribution" as compared with Rs. 11,643 and Rs. 2,518, respectively, for the preceding year. The expenditure was normal.
Maintenance and repairs
4. (a) *Kharif* (1916).—There were light showers of rain during April, May and June, but these did not benefit sowings. The monsoon broke about the middle of July and was well distributed. There was good general rainfall in August and light showers during September. The heaviest falls recorded were 4.2 inches on 16th July at Kamrauli in Bikaner State, 4.5 inches at Otu on 6th August, and 2.4 inches at Mauju Khara on 14th September.
Nature of seasons and state of demand and supply
Kharif 1916
Rabi 1916-17

The rainfall was considerably above the average of the previous 17 years.

Water first reached Otu Weir on the 18th June which was unusually early, but the supply was poor and the lake was not filled till 22nd July. The direct minors were opened on the 30th June, but the supply of water was not sufficient for opening the main canals till 20th July. The demand then was not keen owing to local rainfall. Later the supply was fairly good for the rest of the season.

(b) *Rabi*.—Supply for ploughing and sowing was good. There was little or no rain, except light showers, in October, January and March, and that little was insufficient for maturing the crop properly. The area cropped was large, but the outturn was poor in quantity.

(c) *Rainfall*.—The average rainfall of all stations for the year 1916-17 was :—

| | | | | | |
|---------|-----|-----|-----|-----|---------------|
| British | ... | ... | ... | ... | 17.70 inches, |
| Bikaner | ... | ... | ... | ... | 13.90 " |

against British 3.15 inches and Bikaner 2.2 inches during 1915-16.

Water was escaped down the river from 23rd to 30th July, again on 5th, 7th to 20th, 24th to 27th August and 6th-7th September. The maximum escape was on 13th August, when the downstream gauge was 8.0 feet.

The Northern and Southern Canals ran for 66 and 67 days, respectively, during *kharij* and 26 days during *rabi* with average discharges of 725 and 234 cusecs, respectively.

5. The following table shows the area irrigated in British and Bikaner Territories during the last five years ending 1916-17. The area in British Territory includes area assessed by the Civil Department :—

| Crop. | 1912-13. | | | 1913-14. | | | 1914-15. | | | 1915-16. | | | 1916-17. | | |
|---|----------------------------|----------|--------|----------|----------|--------|----------|----------|--------|----------|----------|--------|----------|----------|--------|
| | British. | Bikaner. | Total. | British. | Bikaner. | Total. | British. | Bikaner. | Total. | British. | Bikaner. | Total. | British. | Bikaner. | Total. |
| | Acres. | Acres. | Acres. | Acres. | Acres. | Acres. | Acres. | Acres. | Acres. | Acres. | Acres. | Acres. | Acres. | Acres. | Acres. |
| Kharij | 23,835 | 2,295 | 26,090 | 9,690 | 5,115 | 14,805 | 9,330 | 1,663 | 10,993 | 4,218 | 12 | 4,230 | 10,737 | 3,254 | 13,991 |
| Rabi | 17,527 | 4,014 | 21,541 | 3,035 | 1,720 | 4,755 | 15,602 | 6,403 | 22,005 | 17,783 | 3,753 | 21,536 | 14,690 | 8,786 | 23,476 |
| Total | 41,362 | 7,179 | 48,541 | 12,725 | 6,835 | 19,560 | 24,932 | 8,066 | 32,998 | 22,006 | 3,765 | 25,771 | 25,427 | 12,040 | 37,467 |
| Total number of days canal was in flow. | Northern Ghaggar Canals... | | 46 | | | 73 | 102 | | | 50 | | | 92 | | |
| | Southern Ghaggar Canals .. | | 32 | | | 80 | 100 | | | 56 | | | 93 | | |

The area irrigated was the highest on record. The figures for 1913-14 to 1916-17 do not include the area under *palewar* (watered but not sown and on which no water-rates are charged), whereas the figures for the previous years include *palewar*. The *palewar* area included in 1912-13 was 23,098 acres, so that the true area irrigated that year was 25,433 acres and not 48,541 acres as shown in the table.

The land under fluctuating assessment is not subject to water-rates, but the canals receive a credit for any fluctuating revenue in excess of an average of Rs. 37,000 per annum.

The amount of occupier's rate assessed was Rs. 4,330 in *kharij* and Rs. 18,245 in *rabi* and the rate per acre assessed works out to 4.29 and 2.5, respectively.

6. *British*.—The operation of the year resulted in a loss of Rs. 8,630 which is equivalent to 2.29 per cent. on the capital outlay compared with a loss of Rs. 18,473 equivalent to 4.91 per cent. in the previous year. So long as the canals receive no revenue for the greater part of the irrigation which they effect, they cannot be expected to be remunerative.

7. The result of the year's working would have been very satisfactory if all land paid water-rates. Although the land-owners of the old inundation area have no longer the expense of maintaining their old channels, their former bunds and the high embankments round their fields, they nevertheless pay no water-rates and their fluctuating crop rates are credited to the Civil Department and not to the canals.

The canals form a very useful public work, but, owing to the method of crediting the revenue indicated above, they appear yearly as irrigation propositions worked at a loss at least as regards Imperial expenditure and revenue.

The canals were in flow for 93 days against 53 days in 1915-16 and 120 days in 1914-15.

The area remitted in British Territory was 813 acres in *Kharif* and 784 acres in *Rabi*. The approximate value of crops matured on the Ghaggar Canal in British Territory amounted to Rs. 8,88,547 against Rs. 5,67,751 in the previous year.

The principal crops grown are wheat and rice.

(b) *Nature and scope of contemplated new works and progress made on the preparation of new projects*—The estimate for raising the reservoir level by 3 feet so as to get a more continuous supply of water for the canals, which was originally submitted in 1912, was again submitted in a slightly revised form after more careful study of the subject. It was, however, considered best to take no further action on the subject for the present as it is possible that the northern canal area may hereafter form part of the Sirhind Canal under the Bakra Dam Project, and in that case the existing reservoir storage capacity would be sufficient for the Southern Ghaggar Canal.

(c) *Working of the Ghaggar Canals in the Bikaner State*.—The indents made by the State authorities were complied with in full whenever sufficient water was available, but the State authorities often refused to take water to the extent available. The largely improved area, however, irrigated in Bikaner State seems to show that the channels there must be getting into better condition.

The following details of irrigation have been supplied by the State:—

| Canals. | | | | 1916-17. | | | 1915-16. | | |
|----------------|-----|-----|-----|----------|--------|--------|----------|--------|--------|
| | | | | Kharif. | Rabi. | Total. | Kharif. | Rabi. | Total. |
| | | | | Acres. | Acres. | Acres. | Acres. | Acres. | Acres. |
| Northern Canal | ... | ... | ... | 2,403 | 5,979 | 8,382 | 12 | 1,999 | 2,011 |
| Southern Canal | ... | ... | ... | 851 | 2,807 | 3,658 | Nil | 1,157 | 1,157 |
| Total | ... | ... | ... | 3,254 | 8,786 | 12,040 | 12 | 3,156 | 3,168 |
| Flow | ... | ... | ... | 3,251 | 8,786 | 12,010 | 12 | 3,156 | 3,168 |
| Lift | ... | ... | ... | Nil | Nil | Nil | Nil | Nil | Nil |
| Total as above | ... | ... | ... | 3,254 | 8,786 | 12,040 | 12 | 3,156 | 3,168 |

The following table shows the working of the canals as reported by the State : -

| Particulars. | | | | | 1915-16. | 1916-17. |
|--------------------------|-----|-----|-----|-----|----------|----------|
| <i>Receipts.</i> | | | | | Rs. | Rs. |
| Water-rate | ... | ... | ... | ... | 8,408 | 27,616 |
| Miscellaneous | ... | ... | ... | ... | 154 | 237 |
| Total | | | | | 8,562 | 27,953 |
| <i>Working expenses.</i> | | | | | | |
| Establishment | ... | ... | ... | ... | 2,013 | 2,756 |
| Other expenses | ... | ... | ... | ... | 8,908 | 2,269 |
| Total | | | | | 11,821 | 5,025 |
| Profit or loss (net) | ... | ... | ... | ... | - 3,259 | + 22,928 |

It will thus be seen that the Bikaner State got a profit of 8.03 per cent. on the working of the canals for the year under review, the contribution capital account standing at Rs. 2,85,442.

LOWER SUTLEJ CANALS DIVISION.

(SUPERINTENDING ENGINEER—MR. A. R. MURRAY.)

Capital account :
Kharif 1916.
Rabi 1916-17.

1. These canals are classified under 43—
Minor Works and Navigation for which no Capital Account is kept.

2. The expenditure amounted to Rs. 45,922 against Rs. 54,227 in the preceding year and Rs. 34,441 the average of the previous triennium. It was chiefly incurred on constructing diversions of the Muhammadwah Canal and a masonry toe wall below the Islam Escape, Muilsai Canal, and making additions and alterations to Islam inspection house, Muilsai Canal.

3. Expenditure amounted to Rs. 86,519 against Rs. 1,11,535 in the preceding year and Rs. 1,27,779 the average of the previous triennium, and was incurred on ordinary maintenance of canals, etc.

4. The total rainfall at Lodhran was 10.97 inches against an average of 4.07 inches. No rain fell during the *rabi*. The demand was keen throughout. The Sutlej was late in rising, and indigo and other early crops suffered, but canal supplies were good during the latter part of the *kharif* season and continued well into the *rabi*.

The following statement gives the dates of opening and closing of the canals during the year :—

| Name of canal. | DAYS OF | | Number of days canal was in flow. |
|--------------------|----------------|--------------------|-----------------------------------|
| | Opening. | Closing. | |
| Hajiwah | 29th May 1916 | 4th November 1916 | 157 |
| Muilsai | 4th June 1916 | 20th December 1916 | 187 |
| Muhammadwah | 18th May 1916 | 22nd November 1916 | 162 |
| Bahawalwah Lodhran | 18th June 1916 | 21st October 1916 | 142 |

5. The following table compares the areas irrigated and matured with the average of the preceding triennium :—

Area irrigated
Kharif 191
Rabi 1916-17.

| Season. | Canal. | AVERAGE FOR THREE YEARS ENDING 1915-16. | | 1916-17. | |
|-------------|-------------------|--|----------|------------|----------|
| | | Irrigated. | Matured. | Irrigated. | Matured. |
| Kharif | Hajiwah ... | 16,390 | 13,375 | 14,072 | 11,913 |
| | Sutlej Series ... | 125,681 | 107,921 | 125,001 | 115,279 |
| | Total ... | 142,071 | 121,299 | 149,073 | 127,192 |
| Rabi | Hajiwah ... | 25,265 | 23,978 | 30,031 | 24,172 |
| | Sutlej Series ... | 146,250 | 139,896 | 184,777 | 169,249 |
| | Total .. | 171,515 | 163,874 | 214,811 | 193,421 |
| GRAND TOTAL | | 313,586 | 284,973 | 363,884 | 320,613 |

The total area which failed to mature was 43,271 (*viz.*, 21,831 acres during kharif and 21,390 during rabi) against 41,751 acres during the preceding year. The increase is mainly attributable to lack of rainfall during the *rabi* maturing period.

6. The total income from all sources was Rs. 6,26,728 against Rs. 6,21,610 in 1915-16, and the total expenditure Rs. 2,39,727 against Rs. 2,85,454 in the preceding year. The net revenue amounted to Rs. 3,87,001 against Rs. 3,36,156 for the year 1915-16, and an average of Rs. 3,20,796 in the previous triennium.

The uncollected balance of the occupier's rate amounted to Rs. 67 only.

7. The gross area irrigated and the area matured are the second highest on record. The result of the year's operations may, therefore, be said to be, on the whole, very satisfactory.

The amalgamation system of running channels in Lodhran Sub-Division is now complete, and remodelling with the object of improving distribution is in hand. The width of some of the larger channels is being increased to enable them to carry correct supplies.

A masonry crossing of 2,000 cu-secs capacity was constructed at the expense of the Southern Punjab Railway over the Hajiwah Canal to provide an outfall for river spill partially blocked by the Sutlej Valley Railway.

As the result of river erosion the Muhammadwah Canal was penetrated in October at a point about 8 miles from its off-take from the river, necessitating the construction of a diversion.

CHENAB INUNDATION CANALS.

(SUPERINTENDING ENGINEER—MR. A. R. MURRAY.)

Capital account:
Kharif 1916.
Rabi 1916-17.

1. There is no capital account for these canals. They are classified under 43—Minor Works and Navigation.

2. The expenditure was Rs. 23,706 against Rs. 11,214 of the year (1915-16). This was incurred mainly on excavating new heads for the Wali Muhammad and Matithal Canals, remodelling Qutabpur Minor, and fixing iron pipe outlets in Lower Bakhtuwah with its branches.

3. Expenditure of Rs. 78,023 against Rs. 1,05,894 of the preceding year, was incurred on ordinary silt clearance of canals, repairing breaches, and strengthening banks.

4. The rainfall during *khari* 1916 was 3.89 inches in Tahsil Multan and 6.65 inches in Tahsil Shujabad. It did a much good to the *khari* crops and supplemented canal irrigation. The rainfall during *rabi* was 2.53 inches in Multan and 0.20 inches in Shujabad.

The river Chenab remained abnormally low till the 1st week of June and consequently the opening of canals was late. It, however, rose rapidly after this date and gave good supplies until the end of August.

The statement below gives the dates of opening and closing:—

| Name of canal. | DATES OF | | Number of days canal was in flow. |
|------------------------|----------------|---------------------|-----------------------------------|
| | Opening. | Closing. | |
| Matithal... .. | 11th June 1916 | 25th September 1916 | 100 |
| Daurana Langana | 10th June 1916 | 24th September 1916 | 88 |
| Wali Muhammad | 5th June 1916 | 23rd September 1916 | 88 |
| Sikanderabad | 24th May 1916 | 16th October 1916 | 138 |
| Gajjuhatta | 3rd June 1916 | 13th October 1916 | 111 |
| Balochanwah | 12th June 1916 | 26th September 1916 | 97 |

The head of the Matithal Canal silted up during floods, which resulted in its partial failure. The Wali Muhammad and its main branch, the Daurana Langana, had to be run in rotation for some time owing to silting up of the head. The Sikanderabad and Gajjuhatta systems worked exceptionally well, and the Balochanwah had a comparatively good supply.

Area irrigated :
Khari 1916.
Rabi 1916-17.

5. The following table compares the areas irrigated with the averages of previous triennia:—

| Crops. | AVERAGES OF THREE YEARS ENDING | | 1915-16. | 1916-17. |
|--------------|--------------------------------|----------|----------|----------|
| | 1912-13. | 1915-16. | | |
| | Acres. | Acres. | Acres. | Acres. |
| Khari | 101,141 | 95,030 | 84,107 | 93,537 |
| Rabi | 80,469 | 100,576 | 86,378 | 111,518 |
| Total | 181,610 | 195,606 | 170,485 | 205,075 |

The area which failed to mature was 17,004 acres or 18.18 per cent. of the total area irrigated during *khari* and 7,317 acres or 6.63 per cent. of the total area irrigated during *rabi*.

6. The total income from all sources was Rs. 4,43,797 against Rs. 4,71,361 of the previous year, and the total expenditure under all heads was Rs. 1,55,764 against Rs. 1,72,292. The net income was, therefore, Rs. 2,88,033 against Rs. 2,99,072 of the preceding year and an average of Rs. 2,81,569 for the previous triennium.

Financial results based on collections:
Rabi 1915-16,
Kharif 1916.

The uncollected balance of the Occupier's rate was Rs. 3,858.

7. Generally speaking, the Chenab Canals did well during the year. The crops were fair and there were no calamities.

General remarks.

Indigo was extensively sown, much of it on well irrigation, to meet a keen demand. Wheat was also sown extensively, and its yield was good in spite of scanty rainfall during the maturing period.

A high flood came down the river between 16th and 18th July and the gauge at Shershah rose to 18.8 inches on 19th July 1916. As a result of this flood the Dhundu flood embankment in the Shujabad Tahsil breached, but the damage done was not great. This bund is maintained by the District Board of Multan.

River erosion continued near Buch in the neighbourhood of the Guj-juhatta Canal, but was not so serious as in previous years.

The Lower Bakhtawah distributary was piped, and further piping of distributaries will be carried out as funds permit. It is proposed to re-contour the tract commanded by these canals. An accurate contoured map is greatly to be desired and should prove of considerable service in designing the alignments of distributary channels when the Haveli Project scheme is taken up in detail.

MUZAFFARGARH CANALS DIVISION.

(SUPERINTENDING ENGINEER—MR. A. R. MURRAY)

1. No capital account is kept for these canals. They are classified under 43—Minor Works and Navigation and Agricultural.

Capital account -
Kharif 1916,
Rabi 1916-17.

2. The expenditure amounted to Rs. 36,403 against Rs. 24,170 in the preceding year, and was incurred mainly on completing and extending piping and remodelling of channels and building new falls, stop dams and tail clusters.

Extensions and improvements

In addition to the above Rs. 10,739 against Rs. 9,859 during the preceding year, were spent from the "Agricultural fund" on extension and strengthening of embankments and completing works in progress at end of the preceding year.

3. The expenditure amounted to Rs. 1,76,475 against Rs. 1,96,207 during 1915-16 and was incurred on ordinary silt clearances of canals, repairing breaches, strengthening and raising banks, and improving supplies. Rupees 14,431 in addition was expended from the "Agricultural fund" on maintenance of inspection houses and flood embankments.

Maintenance and repairs.

4. The rainfall during *kharif* was exceptionally heavy, especially in the month of August, and consequent flooding damaged a considerable area of crops, chiefly in the Sanawan Tahsil. No rain fell during *rabi*. Both the Indus and Chenab were late in rising; the latter so much so that the canals off-taking from it could not be opened till well on towards the middle of June. Thereafter, however, it maintained a high level and the canals received good supplies, which were well maintained until September. Floods came down both rivers during August, but did no damage.

Nature of season and state of demand and supply:
Kharif 1915,
Rabi 1916-17.

The following statement gives the period during which canals were in flow :—

| Name of canal. | | Date of opening. | Date of closing. | Number of days canal was in flow. |
|----------------|----------------|---------------------|-------------------------|-----------------------------------|
| Indus Series | Kot Sultan ... | 12th May 1916 ... | 1st December 1916 ... | 201 |
| | Magasson ... | 14th May 1916 ... | 16th October 1916 ... | 155 |
| | Maggi ... | 1st May 1916 ... | 16th October 1916 ... | 168 |
| | Ghatta ... | 1st May 1916 ... | 30th September 1916 ... | 153 |
| | Puran ... | 26th March 1916 ... | 25th November 1916 ... | 233 |
| | Suleman ... | 14th May 1916 ... | 10th October 1916 ... | 150 |
| Chenab Series | Karam ... | 15th June 1916 ... | 12th September 1916 ... | 88 |
| | Ganesh ... | 11th June 1916 ... | 1st October 1916 ... | 111 |
| | Taliri ... | 16th June 1916 ... | 2nd October 1916 ... | 113 |

5. The following statement shows the areas irrigated as compared with the averages of the two previous triennia :—

Areas irrigated;
Kharif 1916.
Rabi 1916-17.

| Name of crop. | AVERAGE FOR THREE YEARS ENDING 1912-13. | | | AVERAGE FOR THREE YEARS ENDING 1915-16. | | | 1916-17. | | |
|---------------|--|------------------|------------------------|--|-----------------|------------------------|------------------|-----------------|------------------------|
| | Matured area. | Failed area. | Percentage of kharifa. | Matured area. | Failed area. | Percentage of kharifa. | Matured area. | Failed area. | Percentage of kharifa. |
| Kharif ... | Acres 139,489 | Acres. 22,948 | Acres. 14.1 | Acres. 126,024 | Acres 22,408 | Acres. 16.0 | Acres 155,023 | Acres 14,668 | Acres. 8.6 |
| Rabi ... | 203,055 | 12,540 | 5.8 | 213,648 | 14,279 | 6.8 | 215,049 | 13,720 | 6.0 |
| Total ... | 342,544 | 35,482 | 9.4 | 340,672 | 36,687 | 9.7 | 370,072 | 28,388 | 7.1 |

The percentage of failed area, although slightly above that of the preceding year, is lower by 2.6 per cent. than that of the previous triennium and less than in any other year since 1902.

6. The total revenue amounted to Rs. 7,53,898 against Rs. 6,46,213 in 1915-16, and the working expenses to Rs. 3,51,426 against Rs. 3,57,977. The net revenue amounted to Rs. 4,02,472 against Rs. 2,88,236 of the preceding year and an average of Rs. 2,94,256 for the previous triennium.

The uncollected balance of the occupier's rate amounted to Rs. 2,720.

7. The year's results were generally excellent. In spite of the late opening of the Chenab Series the areas, both matured and irrigated, for the whole Division constitute a record.

The new feeder for the Suleman Canal gave results which surpassed expectation. The supply on this channel was equal to the demand throughout the year and the area irrigated showed an increase of 22 per cent.

The Sanawan drain was successful in preventing water-logging near the tahsil building until August, but its capacity then proved unequal to coping with the heavy rain and flooding from neighbouring high lands, though subsequently it considerably hastened drying.

The compulsory closing of the Maggi and the Magasson Canals on the 16th October conduced to early drying of the low lands commanded by these channels and facilitated sowing of rabi crops.

Further attention is being given to the question of drainage, and old drains and depressions are being cleared of obstructions and put in order.

Steady progress continues to be made in remodelling and regrading channels and in the substitution of iron pipe outlets for open cuts. The improved results obtained for the year are undoubtedly due to the better distribution made possible by these means.

The necessity for increasing the escape capacity of many channels is an important question and several schemes for this purpose are being investigated.

SHAHPUR (PROVINCIAL) INUNDATION CANALS.

(SUPERINTENDING ENGINEER—MR. W. P. SANGSTER, C.I.E.)

Capital account :
Kharif 1916.
Rabi 1916-17.

1. No capital account is kept for these canals.

Extensions and improvements.

2. No expenditure was incurred under this head.

3. Expenditure to the extent of Rs. 26,108 against Rs. 19,329 in the previous year was incurred on the usual maintenance and repairs and silt clearance. The corresponding expenditure during the preceding 22 years averaged Rs. 14,228 per annum. The increase during the year is being investigated.

Nature of seasons and state of demand and supply :
Kharif 1916.
Rabi 1916-17.

4. The rainfall was 20.08 inches (*kharif* 18.06 inches and *rabi* 1.42 inches) against 3.43 inches in the preceding year.

Demand for canal water was moderate, there being sufficient rain during *kharif*. Supply in the river was satisfactory. The canals were opened and closed on the following dates :—

| | <i>Date of opening.</i> | <i>Date of closing.</i> |
|-----------------|-------------------------|-------------------------|
| Raniwah Canal | ... 23rd April 1916 | 20th September 1916. |
| Corbynwah Canal | ... 14th May 1916 | 6th September 1916. |

The corresponding dates of opening and closing averaged over the preceding 22 years, were as follows :—

| | <i>Date of opening.</i> | <i>Date of closing.</i> |
|-----------------|-------------------------|-------------------------|
| Raniwah Canal | ... 16th April 1916 | 14th September 1916. |
| Corbynwah Canal | ... 12th April 1916 | 10th September 1916. |

The Raniwah opened a week later and closed six days later than the average dates of the past, and the Corbynwah opened about a month later and closed four days earlier than the past average.

Area irrigated :
Kharif 1916.
Rabi 1916-17.

5. The area irrigated compares as follows with the averages of the two preceding triennia :—

| Season. | | | | AVERAGE OF THREE YEARS ENDING | | Actual for 1916-17. |
|---------|-----|-----|-----|-------------------------------|----------|---------------------|
| | | | | 1912-13. | 1915-16. | |
| | | | | Acres. | Acres. | Acres. |
| Kharif | ... | ... | ... | 17,034 | 14,980 | 6,855 |
| Rabi | ... | ... | ... | 8,349 | 11,788 | 24,510 |
| Total | ... | ... | ... | 25,683 | 26,768 | 31,404 |

The figures for the *kharif* and *rabi* crops are not comparable with the averages of the two previous triennia on account of transfer of *kharif* irrigation of grass to *rabi*. The compliance of orders issued previously on the subject is being insisted upon.

The increase in irrigation over the preceding two triennia is due to the satisfactory state of the river supply and timely rainfall.

Revenue was remitted on 1,659 acres, of which 1,213 acres were remitted under Tenancy Rules, 339 acres due to bad germination, and 26 acres due to high supply causing the flooding of fields

6. The revenue receipts and expenditure of the year compare as follows with the figures of the previous triennium :—
Financial results based on collections:
Rabi, 1915-16.
Kharif, 1916

| Details. | Average triennium ending 1915-16. | Actual for 1916-17. |
|--|---|------------------------|
| | Rs. | Rs. |
| Total assessments, direct and indirect ... | 51,679 | 71,047 |
| Receipts, direct and indirect | 51,689 | 45,465 |
| Working expenses | 39,216 | 47,609 |
| Net revenue ... | 12,473 | — 2,141 |

There was a loss of Rs. 2,141 on the year's working which is due to higher working expenses and considerable area irrigated free of water-rates under Tenancy Rules. This area amounts to 1,213 acres.

SIMLA :

The 8th October 1917.

W. F. HOLMS,

Chief Engineer, Irrigation Works, Punjab.

GOVERNMENT OF THE PUNJAB.
PUBLIC WORKS DEPARTMENT.

IRRIGATION BRANCH.

Part II.

STATISTICAL STATEMENTS FOR THE YEAR 1916-17.

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STATEMENT OF CANALS

| PARTICULARS. | | MAJOR IRRIGATION | | | | | | |
|---|---------------------------------------|--|-------------|--|------------------------------|---------------------------------|---------------------|---------------------|
| | | Western Jumna Canal including Sirsa Branch, British and Patana. | SINDH CANAL | | Upper Bari Doab Canal. | Lower Bari Doab Canal. | Upper Chenab Canal. | Lower Chenab Canal. |
| | | | British. | Patiala, Nabha and Jind States. | | | | |
| 1 | | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Source of supply | | Jumna. | Futlej. | | Ravi. | Ravi and Chenab. | Chenab. | Chenab. |
| Minimum discharge of river. | Ever recorded, cubic feet per second | 2,167 | 2,780 | | 1,272 | 220 | 3,884 | 3,634 |
| | During the year " " | 2,244 | 3,468 | | 1,740 | 240 | 4,048 | 4,682 |
| | As designed " " | 5,178 | 3,840 | 2,160 | 5,000 | 6,750 | 11,742 | 8,318 |
| Maximum discharge of canal. | Now authorized " " | 6,430 | 5,431 | 3,080 | 6,700 | ... | 11,874 | 10,720 |
| | During the year " " | 6,131 | 8,280 | ... | 6,699 | 4,650 | 8,896 | 10,206 |
| Average annual rainfall | Inches | (a) 33.48 | (b) 16.40 | (b) 18.19 | (a) 24.16 | (b) 85.11 | (c) 17.87 | (c) 13.11 |
| Gross area commanded | Acres | 2,785,268 | 2,558,132 | 1,954,560 | 1,782,560 | 1,557,180 | 1,073,330 | 3,387,626 |
| Culturable area commanded | " | 2,315,077 | 2,273,467 | 1,629,000 | 1,594,346 | 1,204,818 | 1,523,101 | 2,582,598 |
| Area proposed to be irrigated annually. | By complete project | 693,655 | 763,442 | 420,000 | 821,655 | 823,984 | 683,876 | 1,726,766 |
| | At present | 693,655 | 760,000 | 420,000 | 821,655 | 784,606 | 592,783 | 1,726,766 |
| Sanctioned Estimate— | | | | | | | | |
| Direct charges | Rs. | 1,06,54,269 | 2,29,13,099 | 1,44,67,175 | 1,57,23,565 | 2,16,69,940 | 3,01,31,523 | 2,56,74,175 |
| Indirect charges | " | 7,52,277 | 12,73,126 | ... | ... | 6,68,462 | 12,25,441 | 8,31,791 |
| Interest during construction | " | 34,27,795 | 87,03,621 | ... | ... | 34,29,947 | 71,03,668 | 66,60,277 |
| | Total Estimate | 1,47,32,341 | 3,29,90,745 | 1,44,67,175 | 1,57,23,565 | 2,57,58,349 | 4,44,60,692 | 3,31,66,243 |
| Expenditure to end of 1916-17. | Direct charges | 1,80,44,014 | 2,43,81,060 | 1,43,17,259 | 2,11,00,383 | 2,14,20,273 | 3,43,61,637 | 3,15,78,920 |
| | Indirect charges | 8,10,219 | 12,11,153 | ... | 7,77,020 | 4,58,890 | 9,80,547 | 5,76,008 |
| | Interest - during construction | 32,08,964 | 85,45,401 | ... | 1,04,07,038 | 39,00,619 | 83,69,216 | 61,52,513 |
| | Total Expenditure | 2,20,63,197 | 3,41,38,714 | 1,43,17,263 | 3,89,31,890 | 2,57,79,712 | 4,36,51,400 | 3,83,07,331 |
| Works as now sanctioned— | | | | | | | | |
| Main Canals, irrigation | Miles | 82 | 39 | ... | 30 | 134 | 171 | 40 |
| Branch Canals | " | 248 | 270 | 219 | 295 | ... | ... | 387 |
| Branch Feeder Canals | " | ... | ... | ... | 16 | ... | ... | ... |
| Lower Chantang Nala Canal | " | 4 | ... | ... | ... | ... | ... | ... |
| Distributaries, irrigation | " | 1,837 | 1,500 | 1,821 | 1,561 | 1,050 | 1,178 | 2,249 |
| Lower Chantang Nala Canal Distributaries | " | 45 | ... | ... | ... | ... | ... | ... |
| Of above— | | | | | | | | |
| Navigable Channels | " | 121 | 92 | 46 | ... | ... | ... | ... |
| Works completed to end of 1916-17— | | | | | | | | |
| Main Canals, irrigation | " | 82 | 39 | ... | 30 | 134 | 171 | 40 |
| Branch Canals | " | 248 | 270 | 219 | 295 | ... | ... | 387 |
| Branch Feeder Canals | " | ... | ... | ... | 16 | ... | ... | ... |
| Lower Chantang Nala Canal | " | 4 | ... | ... | ... | ... | ... | ... |
| Distributaries, irrigation | " | 1,837 | 1,500 | 1,821 | 1,561 | 1,046 | 1,107 | 2,249 |
| Lower Chantang Nala Canal Distributaries | " | 45 | ... | ... | ... | ... | ... | ... |
| Of above— | | | | | | | | |
| Navigable Channels | " | 121 | 92 | 46 | ... | ... | ... | ... |

NOTE—Miles shown in this statement

- *Salampur and
†Includes 4 miles
- (a) Average rainfall for the last 38 years.
 (b) Ditto ditto 83 do.
 (c) Ditto ditto 27 do.
 (d) Ditto ditto 15 do.
 (e) Ditto ditto 10 do.

A.
IN THE PUNJAB.

| WORKS. | | | | MINOR IRRIGATION WORKS. | | | | | | | |
|---------------------|------------------------|----------------------|---------------------|--------------------------|---------------------------------------|----------------------------|----------------|---------------------------------|---------------------------|------------------------------|---|
| Upper Jhelum Canal. | Lower Jhelum Canal. | Upper Sutlej Canals. | Sidhni Canals. | Indus Inundation Canals. | Shahpur (Imperial) Inundation Canals. | GHAGGAR INUNDATION CANALS. | | Lower Sutlej Inundation Canals. | Chenab Inundation Canals. | Muzilgarh Inundation Canals. | Shahpur (Provincial) Inundation Canals. |
| 9 | 10 | 11 | 12 | 13 | 14 | British. | Blk and State. | 17 | 18 | 19 | 20 |
| Jhelum. | Jhelum. | Sutlej. | Kavi. | Indus. | Jhelum. | Ghaggar. | | Sutlej. | Chenab. | Indus Chenab. | Jhelum. |
| 4,514 | 2,795 | 3,001 | The river runs dry. | 9,439 | 2,795 | The river runs dry | | 2,580 | 1,650 | 9,489 1,650 | 2,795 |
| 4,514 | ... | 3,690 | | 22,856 | ... | | | 2,530 | 1,650 | 22,658 1,650 | ... |
| 8,500 | 8,500 | 4,986 | | Not known | 1,100 | 1,000 | 500 | 5,555 | 5,109 | 7,584 | 933 |
| ... | { K 8,750 R 8,750 } | ... | 2,605 | ... | 1,100 | 1,100 | 600 | ... | ... | ... | 934 |
| 5,690 | 4,250 | 7,691 | 2,629 | 8,719 | 517 | 726 | 234 | 6,281 | 4,105 | 11,015 | 735 |
| 81.52 | (d) 11.00 | (f) 10.07 | (g) 6.61 | (A) 6.57 | (g) 14.52 | (i) 9.83 | (j) 12.62 | (A) 5.41 | (A) 6.05 | (a) 5.2 | (g) 10.77 |
| 598,106 | 1,863,399 | 962,780 | 880,377 | 879,108 | 67,067 | 80,924 | 44,901 | 918,203 | 458,478 | 771,811 | 60,929 |
| 569,209 | 1,162,405 | 899,896 | 344,159 | 422,923 | 62,654 | 72,876 | 34,618 | 905,152 | 800,318 | 674,932 | 59,255 |
| 341,960 | 668,921 | 349,697 | 150,000 | 806,760 | 47,750 | 46,834 | 17,309 | 250,000 | 200,000 | 850,000 | 27,000 |
| 327,095 | 668,921 | 329,194 | 150,000 | 805,760 | 42,000 | 46,834 | 17,309 | 250,000 | 200,000 | 850,000 | 24,170 |
| 4,32,40,292 | 1,83,05,782 | 13,35,878 | 9,62,333 | 6,87,906 | 2,05,913 | 8,59,592 | 3,07,365 | ... | ... | ... | ... |
| 10,55,277 | 5,69,206 | 45,400 | 37,092 | 19,729 | 9,891 | 10,023 | ... | ... | ... | ... | ... |
| 73,20,743 | 32,09,554 | ... | 29,086 | ... | ... | ... | ... | ... | ... | ... | ... |
| 5,19,17,306 | 2,22,62,712 | 13,52,778 | 10,39,561 | 7,07,645 | 2,15,914 | 8,69,720 | 8,07,555 | ... | ... | ... | ... |
| 4,30,11,594 | 1,55,13,447 | 17,18,805 | 12,95,265 | 29,01,976 | 2,03,939 | 8,65,837 | 2,55,412 | ... | ... | ... | ... |
| 8,38,568 | 3,59,721 | 1,01,641 | 49,226 | 50,375 | 9,081 | 10,792 | ... | ... | ... | ... | ... |
| 85,23,443 | 33,93,714 | 8,87,090 | 2,13,511 | 6,56,207 | ... | ... | ... | ... | ... | ... | ... |
| 5,23,72,340 | 2,42,96,892 | 27,06,936 | 15,45,001 | 30,68,558 | 2,15,914 | 8,76,129 | 2,95,442 | ... | ... | ... | ... |
| 155 | 30 | 826 | 63 | 443 | 59 | 44 | 55 | 400 | 207 | 417 | 33 |
| 37 | 203 | ... | ... | ... | 13 | ... | ... | ... | ... | ... | 18 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 801 | 097 | 835 | 252 | 801 | 72 | 31 | ... | 807 | 63 | 710 | 52 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 458 | 30 | 826 | 63 | 443 | 59 | 44 | 55 | 400 | 267 | 417 | 33 |
| 87 | 156 | ... | ... | ... | 13 | ... | ... | ... | ... | ... | 18 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 305 | 097 | 835 | 252 | 304 | 72 | 34 | ... | 807 | 63 | 740 | 52 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |

ava canal miles of 5,000 feet.

Paridnagar Channel.

for Bhimber diversion—

(5) Average rainfall for the last 24 years.

(6) Ditto ditto 28 do.

(7) Ditto ditto 50 do.

(8) Ditto ditto 18 do.

(9) Ditto ditto 14 do.

(10) Ditto ditto 7 do.

IB

| | | DIRECT CHARGES (NOT EXPENDITURE). | | | | | Indirect charges exclusive of interest. | Total charges exclusive of interest. | Simple interest. |
|---|---------------------------|-----------------------------------|----------------|----------------------|-----------|--------------|---|--------------------------------------|------------------|
| | | Works. | Establishment. | Tools and Materials. | Surveys. | Total. | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| 49—CAPITAL EXPENDITURE ON IRRIGATION WORKS NOT CHARGED TO REVENUE. | | | | | | | | | |
| WESTERN JUMPA CANAL INCLUDING SIANG BRAYCK. | | | | | | | | | |
| To end of previous year | ... | 1,31,39,552 | 83,34,332 | 9,17,908 | 2,19,728 | 1,08,93,547 | 6,10,188 | 1,78,04,836 | |
| During the year | ... | 907 | 320 | 18 | 47 | 1,180 | 21 | 1,310 | |
| Contribution | { To end of previous year | 9,00,108 | 2,35,848 | 25,708 | ... | 31,00,478 | ... | 31,00,478 | |
| | { During the year | ... | ... | ... | ... | ... | ... | ... | |
| SIANGH CANAL—IMPERIAL. | | | | | | | | | |
| To end of previous year | ... | 1,74,23,310 | 42,37,020 | 31,00,384 | 1,85,072 | 2,43,45,111 | 12,11,447 | 2,55,56,528 | |
| During the year | ... | 31,034 | 2,102 | —99 | 17,718 | 39,840 | —204 | 80,288 | |
| Contribution | { To end of previous year | 97,31,130 | 35,80,410 | 12,01,408 | ... | 1,43,02,008 | ... | 1,43,02,008 | |
| | { During the year | 13,088 | 701 | —10 | ... | 13,777 | 66 | 11,933 | |
| | { To end of previous year | 2,772 | 74 | —1 | ... | 1,343 | 9 | 1,354 | |
| | { During the year | 3,098 | 84 | —1 | ... | 3,162 | 9 | 3,170 | |
| UTTER BARI DOAB CANAL. | | | | | | | | | |
| To end of previous year | ... | 1,61,08,101 | 34,04,354 | 9,14,627 | 6,12,100 | 2,11,30,462 | 7,43,003 | 2,18,73,407 | |
| During the year | ... | 1,61,133 | —35,738 | 422 | —1,55,923 | —30,154 | —4,696 | —35,120 | |
| LOWER BARI DOAB CANAL. | | | | | | | | | |
| To end of previous year | ... | 1,54,01,374 | 27,30,153 | 10,10,958 | 9,62,400 | 2,05,03,064 | 4,16,029 | 2,10,21,093 | |
| During the year | ... | 1,16,123 | 2,76,870 | 4,21,770 | —80,453 | 7,23,509 | 36,023 | 7,02,271 | |
| UPPER CHANAB CANAL. | | | | | | | | | |
| To end of previous year | ... | 1,68,04,778 | 42,01,634 | 16,04,094 | 9,11,407 | 2,30,24,602 | 8,77,090 | 2,39,01,693 | |
| During the year | ... | 1,04,640 | 2,18,709 | 5,09,454 | —1,80,068 | 7,57,114 | 1,03,627 | 8,40,601 | |
| LOWER CHANAB CANAL. | | | | | | | | | |
| To end of previous year | ... | 2,61,07,272 | 47,31,392 | 6,30,000 | 4,78,005 | 3,10,33,000 | 7,62,881 | 3,17,94,720 | |
| During the year | ... | 4,10,078 | 87,204 | 6,315 | 23,608 | 4,40,021 | 12,817 | 4,55,238 | |
| UPPER JERUM CANAL. | | | | | | | | | |
| To end of previous year | ... | 8,15,30,787 | 44,03,828 | 44,70,020 | 31,07,074 | 4,15,01,206 | 7,70,623 | 4,23,01,110 | |
| During the year | ... | 11,51,901 | 3,18,233 | 1,16,738 | —1,52,072 | 14,30,299 | 56,610 | 14,68,823 | |
| LOWER JERUM CANAL. | | | | | | | | | |
| To end of previous year | ... | 1,30,13,054 | 21,28,878 | 2,03,027 | 4,12,455 | 1,04,70,841 | 3,00,121 | 1,50,00,702 | |
| During the year | ... | —2,070 | 6,283 | 299 | —55,700 | —59,104 | 600 | —32,784 | |
| UPPER BUTLER INUNDATION CANAL. | | | | | | | | | |
| To end of previous year | ... | 12,75,814 | 3,05,097 | 24,280 | 20,063 | 17,17,361 | 1,01,027 | 16,18,351 | |
| During the year | ... | 681 | 80 | 7 | 754 | 1,461 | 14 | 1,465 | |
| SIDHANT INUNDATION CANAL. | | | | | | | | | |
| To end of previous year | ... | 9,46,878 | 2,03,990 | 20,029 | 43,007 | 12,00,744 | 40,317 | 13,80,041 | |
| During the year | ... | ... | 87 | ... | 8,494 | 6,021 | 2 | 4,529 | |
| INDUS INUNDATION CANAL. | | | | | | | | | |
| To end of previous year | ... | 23,45,100 | 4,23,964 | 35,022 | 84,463 | 21,02,360 | 70,948 | 20,73,303 | |
| During the year | ... | 12,372 | 542 | 29 | —4,260 | 5,018 | 629 | 9,045 | |
| Total Imperial | { To end of previous year | 16,30,34,330 | 2,07,39,018 | 1,19,98,426 | 49,78,123 | 21,07,41,711 | 48,09,773 | 21,69,81,464 | |
| | { During the year | 19,78,808 | 9,03,801 | 10,46,830 | 4,70,238 | 34,86,730 | 2,08,079 | 36,04,709 | |
| Total Contribution | { To end of previous year | 1,06,81,338 | 25,05,991 | 12,15,254 | ... | 1,54,63,493 | ... | 1,54,63,493 | |
| | { During the year | 14,457 | 840 | —12 | ... | 16,284 | 103 | 15,287 | |
| 50—MINOR WORKS AND NAVIGATION. | | | | | | | | | |
| BRAMPTON CANAL. | | | | | | | | | |
| To end of previous year | ... | 1,75,000 | 30,380 | 612 | ... | 3,06,533 | 9,081 | 3,16,014 | |
| During the year | ... | ... | ... | ... | ... | ... | ... | ... | |
| GHAGGAR CANAL. | | | | | | | | | |
| To end of previous year | ... | 3,04,017 | 63,797 | 7,093 | ... | 3,86,337 | 10,792 | 3,97,129 | |
| During the year | ... | ... | ... | ... | ... | ... | ... | ... | |
| Contribution | { To end of previous year | 2,36,621 | 44,354 | 2,574 | ... | 2,83,613 | ... | 2,83,613 | |
| | { During the year | ... | ... | ... | ... | ... | ... | ... | |
| Total Imperial | { To end of previous year | 4,89,677 | 12,067 | 9,510 | ... | 5,21,370 | 20,773 | 5,32,043 | |
| | { During the year | ... | ... | ... | ... | ... | ... | ... | |
| Total contribution | { To end of previous year | 2,88,626 | 44,354 | 2,574 | ... | 2,85,443 | ... | 2,85,443 | |
| | { During the year | ... | ... | ... | ... | ... | ... | ... | |
| JAMSHED CANAL. | | | | | | | | | |
| To end of previous year | ... | 25,078 | 19,321 | 2,004 | ... | 31,004 | 2,705 | 33,709 | |
| During the year | ... | ... | ... | ... | ... | ... | ... | ... | |

I C.

**STATEMENT SHOWING THE FINANCIAL RESULTS OF THE IRRIGATION WORKS IN
THE PUNJAB PROVINCE FOR THE YEAR ENDING 31st MARCH 1917.**

STATEMENT SHOWING THE FINANCIAL RESULTS OF THE IRRIGATION.

REALIZATIONS UNDER THE MAIN HEAD OF

| IRRIGATION. | REVENUE ACTUAL RECEIPTS. | | | | | | | | | | |
|---|----------------------------|---|---------------|-------------|-------------|-------------|--------------|----------------|--------------|--------------------|------------------------------|
| | IRRIGATION. | | | | Navigation. | Floodation. | Water power. | Miscellaneous. | Total. | Refund of revenue. | Gross receipts less refunds. |
| | Water-rate directly yield. | Share of land revenue, assessment of waste and other lands. | Owner's rate. | Total. | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| PRODUCTIVE WORKS. | | | | | | | | | | | |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| Western Jumna Canal, including Sirsa Branch. { Imperial ... | 27,70,447 | 2,09,310 | ... | 29,79,757 | 73,894 | 22,850 | 3,329 | 65,962 | 61,53,094 | 1,134 | 31,01,750 |
| Contribution .. | 2,31,911 | ... | ... | 2,31,911 | ... | 335 | 273 | 3,169 | (a) 2,35,798 | 1,961 | 2,33,781 |
| Sirhind Canal ... { Imperial ... | 39,63,063 | 1,42,791 | ... | 40,90,250 | 9,793 | 31,311 | 1,93,006 | 1,22,627 | 43,04,330 | 654 | 43,03,676 |
| Contribution .. | 24,71,616 | ... | ... | 21,71,910 | 6,310 | 26,821 | 41,780 | 65,349 | 25,60,911 | 8,001 | (b) 20,72,310 |
| Upper Bari Doab Canal ... | 42,07,110 | 9,08,876 | ... | 42,75,984 | ... | 28,933 | 1,10,437 | 1,67,007 | 53,12,301 | 6,437 | 52,06,864 |
| Lower Bari Doab Canal ... | 7,31,730 | 2,03,024 | ... | 9,37,054 | ... | 3,073 | ... | 24,433 | 9,65,130 | 237 | 9,64,893 |
| Upper Chenab Canal ... | 32,83,045 | 3,61,872 | ... | 25,09,917 | ... | 421 | ... | 23,478 | 25,63,010 | 260 | 25,62,750 |
| Lower Chenab Canal ... | 26,63,036 | 60,09,027 | ... | 1,07,31,063 | ... | 16,070 | 14,499 | 87,912 | 1,08,70,111 | 311 | 1,08,30,103 |
| Upper Jhelum Canal ... | 74,793 | ... | ... | 74,793 | ... | 2 | ... | 8,811 | 63,699 | 8 | 63,691 |
| Lower Jhelum Canal ... | 20,19,110 | 17,44,631 | ... | 46,71,902 | ... | 4,210 | 22,077 | 20,071 | 47,38,066 | 373 | 47,39,523 |
| Upper Sutlej Inundation Canals ... | 3,78,080 | 2,16,068 | ... | 6,04,037 | ... | 9,078 | ... | 9,090 | 6,09,001 | 210 | 6,08,791 |
| Sidhuast Canals ... | 4,61,101 | 1,31,344 | ... | 6,63,669 | ... | 237 | ... | 4,358 | 6,60,123 | 371 | 6,59,752 |
| Indus Inundation Canals ... | 1,02,913 | 2,73,600 | ... | 4,06,143 | ... | 2,327 | ... | 50,830 | 5,28,300 | ... | 5,28,300 |
| TOTAL { Imperial ... | 5,66,33,130 | 1,19,31,291 | ... | 3,35,61,421 | 63,381 | 1,16,493 | 2,71,150 | 6,61,450 | 3,98,28,938 | 7,921 | 3,98,31,013 |
| Contribution .. | 20,00,666 | ... | ... | 26,09,666 | 5,310 | 21,150 | 43,033 | 39,639 | 23,06,949 | 10,535 | 27,09,001 |
| WORKS FOR WHICH ONLY REVENUE ACCOUNTS ARE KEPT. | | | | | | | | | | | |
| Lower Sutlej Inundation Canal, including Rajpals | 3,16,634 | 3,05,700 | ... | 6,22,331 | ... | 3,493 | ... | 2,055 | 9,20,914 | 189 | 6,26,725 |
| Munafgarh Inundation Canals ... | 3,32,655 | 4,10,910 | ... | 7,39,274 | ... | 13,117 | ... | 2,056 | 7,63,917 | 49 | 7,63,868 |
| Chenab Inundation Canals ... | 1,93,728 | 2,43,703 | ... | 4,47,630 | ... | 1,000 | ... | 1,019 | 4,44,043 | 215 | 4,43,797 |
| TOTAL ... | 8,33,014 | 9,60,314 | ... | 16,02,123 | ... | 10,610 | ... | 6,369 | 18,24,963 | 450 | 18,24,433 |
| WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT. | | | | | | | | | | | |
| Shahpur Canal ... | 80,316 | 34,672 | ... | 1,14,987 | ... | 35 | ... | 6 | 1,16,016 | ... | 1,16,016 |
| Ghaggar Canal ... { Imperial ... | 21,847 | ... | ... | 21,847 | ... | ... | ... | 3 | 21,850 | ... | 21,850 |
| Contribution .. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| TOTAL { Imperial ... | 1,02,162 | 34,672 | ... | 1,36,831 | ... | 25 | ... | 9 | 1,39,968 | ... | 1,36,669 |
| Contribution .. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| PROTECTORIAL. | | | | | | | | | | | |
| Shahpur Canal ... | 31,693 | 12,873 | ... | 44,865 | ... | ... | ... | 603 | 45,468 | ... | 45,465 |
| Indus Inundation Canals ... | ... | 3,323 | ... | 3,323 | ... | ... | ... | ... | 3,323 | ... | 3,323 |
| TOTAL ... | 31,693 | 16,196 | ... | 49,687 | ... | ... | ... | 600 | 48,687 | ... | 48,687 |

(a) Includes Rs. 1,336 credited to Patela State through (b) and (c) includes Rs. 21,031 and Rs. 19,537, respectively, (d) includes Rs. 72,623 passed through the Administrative (e) " " 6,52,143, Rs. 77,315 and Rs. 31,413 spent (f) " " 2,750 spent by the Bikaner State, (g) " " 2,200 " " " " (h) " " 3 " " " " "

C.

WORKS IN THE PUNJAB PROVINCE FOR THE YEAR ENDING 31st MARCH 1917.

REVENUE AND WORKING EXPENSES.

| MAINTENANCE OF WORKS. | | | | | | | | | | | | | | | | | | | |
|------------------------|------------|---------------|-----------------|-----------|----------------|------------|----------|----------|-----------|-----------|-----------|-------------------|-------------|----------------------------|-----------------------|-------------------|-------------------------------|-------------|--------------|
| ESTABLISHMENT REVENUE. | | | | | ESTABLISHMENT. | | | | | | | | | | | | | | |
| Director. | Executive. | Navigational. | Civil Officers. | Total. | Director. | Executive. | Medical. | Total. | Works. | Repairs. | Sundries. | Tools and plants. | Plantation. | Total cost of maintenance. | Total direct charges. | Indirect charges. | Grand Total Working expenses. | | Net Revenue. |
| Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| 38,107 | 3,23,835 | 253 | 75,781 | 4,38,025 | 16,203 | 92,064 | 11,017 | 1,21,014 | 1,11,182 | 8,66,160 | 8,327 | 14,189 | 10,702 | 8,27,380 | 12,77,408 | 78,010 | 13,56,021 | 17,95,730 | |
| 59 | 250 | ... | ... | 343 | 8,039 | 33,031 | ... | 39,180 | 18,339 | (c) 4,434 | 105 | 874 | 1,372 | 1,03,202 | 1,03,037 | ... | 1,03,637 | 1,20,147 | |
| 30,220 | 3,20,431 | 147 | 1,27,594 | 4,83,458 | 12,222 | 62,163 | 9,725 | 81,113 | 1,31,623 | 6,56,168 | 140 | 16,053 | 20,637 | 8,11,107 | 13,04,015 | 82,536 | 13,87,100 | 20,76,620 | |
| 3,014 | 10,509 | ... | ... | 11,283 | 21,487 | 67,021 | 2,032 | 1,14,000 | 1,21,075 | 6,77,825 | 1,335 | 9,850 | 5,604 | 9,26,789 | 9,43,063 | ... | 9,43,063 | 16,20,347 | |
| 61,229 | 1,63,410 | ... | 1,10,010 | 8,24,020 | 12,684 | 77,186 | 6,403 | 45,453 | 1,00,756 | 4,35,832 | ... | 27,277 | 33,53 | 6,01,121 | 13,17,791 | 1,01,336 | 14,18,126 | 37,60,738 | |
| 15,014 | 1,39,329 | ... | 24,100 | 1,77,370 | 14,600 | 20,616 | ... | 41,085 | 9,901 | 3,70,103 | ... | 6,303 | 27,51 | 1,17,075 | 4,06,374 | 31,002 | 1,28,350 | 3,39,537 | |
| 21,259 | 1,60,554 | ... | 60,637 | 2,02,326 | 9,115 | 21,198 | ... | 33,313 | 23,87 | 1,53,603 | 4,700 | 5,516 | 11,005 | 5,31,310 | 7,90,070 | 11,850 | 8,98,901 | 17,25,299 | |
| 40,102 | 6,11,427 | ... | 2,64,722 | 9,45,351 | 16,971 | 1,23,670 | 23,518 | 1,62,371 | 6,26,162 | 8,79,007 | 2,093 | 49,190 | 50,592 | 16,10,320 | 25,04,077 | 1,55,100 | 27,10,723 | 1,41,04,310 | |
| 1,818 | 55,711 | ... | 1,607 | 60,420 | 20,463 | 60,070 | ... | 90,464 | 47,541 | 3,95,067 | ... | 6,719 | 21,318 | 6,00,254 | 9,10,510 | 20,083 | 9,40,705 | -5,57,161 | |
| 45,180 | 9,02,274 | ... | 81,801 | 4,32,307 | 11,142 | 41,011 | 12,767 | 68,710 | 72,462 | 2,61,739 | ... | 47,700 | 9,806 | 4,51,013 | 9,11,820 | 70,142 | 9,83,862 | 37,51,631 | |
| 5,377 | 78,521 | ... | 10,228 | 91,160 | 7,421 | 41,207 | 1,506 | 63,471 | 13,523 | 2,43,129 | ... | 1,078 | 9,470 | 3,20,512 | 4,50,731 | 30,087 | 4,41,898 | 1,07,300 | |
| 3,700 | 53,316 | ... | 5,410 | 67,561 | 1,071 | 6,790 | 1,712 | 11,513 | 10,503 | 49,142 | ... | 8,600 | 5,332 | 80,382 | 1,47,013 | 11,069 | 1,50,013 | 4,30,737 | |
| 4,038 | 43,581 | ... | 6,700 | 50,310 | 8,003 | 55,051 | 1,475 | 65,301 | 1,16,320 | 1,21,407 | 23 | 1,618 | 16,090 | 3,17,000 | 3,78,010 | 10,085 | 3,98,095 | 1,29,745 | |
| 2,71,215 | 20,10,407 | 330 | 7,71,930 | 30,53,061 | 1,70,856 | 9,32,413 | 67,403 | 6,30,744 | 11,61,819 | 42,61,751 | 18,517 | 1,75,712 | 2,10,151 | 60,89,768 | 1,03,37,540 | 8,32,731 | 1,09,70,471 | 2,80,01,411 | |
| 2,703 | 10,925 | ... | ... | 13,028 | 20,325 | 1,21,662 | 2,032 | 1,67,850 | 1,40,613 | 7,21,360 | 1,416 | 10,263 | 9,437 | 10,33,072 | 10,46,700 | ... | 10,46,700 | 17,10,304 | |
| 0,009 | 40,543 | ... | 0,009 | 61,038 | 5,230 | 22,093 | 1,353 | 23,235 | 40,922 | 67,389 | -622 | 1,406 | 5,131 | 1,02,632 | 2,10,060 | 13,001 | 2,36,727 | 3,67,001 | |
| 9,937 | 66,160 | ... | 9,405 | 75,960 | 11,780 | 35,337 | ... | 47,117 | 39,403 | 1,00,705 | -1,409 | 1,625 | 9,710 | 2,60,131 | 3,34,471 | 16,975 | 3,61,420 | 4,02,472 | |
| 5,115 | 16,254 | ... | 5,146 | 25,815 | 8,311 | 15,719 | ... | 21,027 | 23,700 | 71,720 | ... | 497 | 6,281 | 1,23,353 | 1,42,108 | 8,060 | 1,55,764 | 2,69,033 | |
| 20,671 | 1,10,001 | ... | 23,009 | 1,63,671 | 32,371 | 73,075 | 1,783 | 67,420 | 1,00,001 | 3,10,892 | -3,021 | 3,873 | 31,105 | 5,47,464 | 7,16,335 | 36,653 | 7,40,017 | 10,77,500 | |
| 4,208 | 11,000 | ... | 2,217 | 17,622 | 2,027 | 5,101 | ... | 7,316 | ... | 18,017 | ... | ... | 322 | 26,155 | 47,707 | 3,458 | 47,175 | 97,513 | |
| 3,101 | 9,090 | ... | 602 | 10,793 | 1,009 | 6,535 | ... | 6,231 | 1,509 | 9,787 | ... | -31 | 40 | 17,036 | 27,915 | 2,083 | 30,480 | -8,630 | |
| ... | ... | ... | ... | ... | 155 | (f) 8,165 | ... | 3,350 | 613 | (g) 4,000 | ... | (h) 37 | 20 | 8,130 | 8,130 | ... | 8,130 | -8,130 | |
| 6,307 | 10,059 | ... | 2,610 | 23,335 | 3,721 | 11,720 | ... | 15,470 | 1,920 | 23,401 | ... | -31 | 371 | 43,160 | 71,620 | 9,130 | 77,635 | 60,213 | |
| ... | ... | ... | ... | ... | 166 | 3,103 | ... | 3,320 | 633 | 4,000 | ... | 37 | 30 | 8,130 | 8,130 | ... | 8,130 | -8,130 | |
| 2,037 | 4,716 | ... | 1,118 | 7,871 | 3,313 | 7,601 | ... | 10,914 | ... | 26,108 | ... | ... | ... | 37,052 | 41,070 | 2,033 | 47,000 | -2,114 | |
| 3,109 | ... | ... | ... | 2,100 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2,100 | 203 | 2,303 | 619 | |
| 4,107 | 4,710 | ... | 1,118 | 10,003 | 3,318 | 7,001 | ... | 10,014 | ... | 20,108 | ... | ... | ... | 37,052 | 47,065 | 2,028 | 69,013 | -1,320 | |

the Administrative Accounts of the Province.
actually spent by the British State on maintenance of State Channels.
Accounts of the Province.
by the Native States of Faisal, Nabha and Jind, respectively.

STATEMENT SHOWING THE FINANCIAL RESULTS OF IRRIGATION

| Number of works. | Name of works. | GENERAL FINANCIAL RESULTS TO END OF 1916-17. | | | | | | | | |
|---|--|--|-----------------|---|---|---|---|-----------------------------------|-------------------------------|--|
| | | Mileage in operation. | | Estimated cost of construction (direct and indirect). | Date of completion of work (P. W. Code II, 1918). | Date when system first came into operation. | Total capital outlay (direct and indirect). | Accumulated earnings of interest. | Accumulated surplus revenues. | Total sum-at-charge (column 7 + column 9). |
| | | Main Canals and Branches. | Distributaries. | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6a | 6b | 7 | 8 | 9 | 10 |
| | | Miles. | Miles. | Rs. | Date. | Date. | Rs. | Rs. | Rs. | Rs. |
| MAJOR WORKS. | | | | | | | | | | |
| PRODUCTIVE WORKS. | | | | | | | | | | |
| -1 | Western Jammu Canal, including Sirsa Branch. | (a) 294 | (b) 1,741 | 1,74,79,840 | Western Jammu Canal—1886 | 1820 | 1,76,93,755 | ... | 6,28,63,602 | 1,76,93,755 |
| | | 35 | 161 | 11,60,478 | Sirsa Branch—1885 | 1891-92 | 11,60,478 | ... | ... | 11,60,478 |
| -2 | Sirhind Canal. | 318 | 1,590 | 2,54,14,332 | 1886-87 | 1893-84 | 2,55,92,813 | ... | 1,79,09,042 | 2,55,92,813 |
| | | 210 | 1,821 | 1,43,18,870 | ... | ... | 1,43,17,289 | ... | ... | 1,43,17,289 |
| -3 | Upper Bari Doab Canal. | 341 | 4,561 | 2,10,00,680 | 1878-79 | 1900-61 | 2,18,37,358 | ... | 4,56,29,898 | 2,18,37,358 |
| 4 | Lower Bari Doab Canal. | 134 | 1,046 | 3,20,28,402 | 31st March 1917 | 1913-14 | 2,18,74,263 | 85,36,554 | ... | 2,54,10,817 |
| 5 | Upper Chenab Canal. | 171 | 1,107 | 3,65,34,024 | 31st March 1917 | 1912-13 | 3,68,42,184 | 61,09,593 | ... | 4,15,41,777 |
| 6 | Lower Chenab Canal. | 427 | 2,249 | 3,20,08,066 | 1899-1900 | * | 3,23,56,016 | ... | 12,71,39,012 | 3,23,56,016 |
| 7 | Upper Jhelum Canal. | 125 | 396 | 4,61,21,559 | 31st March 1917 | 1915-16 | 4,38,49,947 | 90,80,907 | ... | 5,29,30,854 |
| 8 | Lower Jhelum Canal. | 185 | 997 | 1,69,68,068 | 31st March 1917 | 1901 | 1,59,33,166 | ... | 1,71,18,331 | 1,69,83,168 |
| 9 | Upper Sutlej Inundation Canals. | 320 | 395 | 17,97,019 | Upper Sutlej—1856-59 Lower Sohan—1892-90 | 1855 1884 | 18,19,844 | ... | 31,40,189 | 18,19,844 |
| 10 | Sidhwal Canals. | 68 | 262 | 12,87,939 | 1886 | 1886 | *13,35,490 | ... | 63,21,034 | 13,35,490 |
| 11 | Indus Inundation Canals. | 443 | 304 | 29,14,290 | 1849-50 | Prior to—1949 | *29,82,851 | 7,06,680 | ... | 86,69,031 |
| | Total { Imperial ... | 2,642 | 11,429 | 22,67,54,836 | ... | ... | 22,06,16,103 | 1,95,23,434 | 27,01,21,618 | 24,01,59,027 |
| | Contribution | 254 | 1,972 | 1,54,79,848 | ... | ... | 1,54,77,767 | ... | ... | 1,54,77,767 |
| MINOR WORKS. | | | | | | | | | | |
| WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT. | | | | | | | | | | |
| 12 | Shahpur Canal. | 60 | 73 | 2,16,914 | 1870-71 | 1870 | 2,16,014 | ... | 11,30,301 | 2,16,914 |
| 13 | Ghaggar... | 44 | 84 | 3,70,129 | 1098-99 | 1897 | 3,70,129 | 10,75,556 | ... | 14,61,687 |
| | Total { Imperial ... | 110 | 108 | 6,92,043 | ... | ... | 6,92,013 | 10,75,556 | 11,30,801 | 16,87,601 |
| | Contribution | 58 | ... | 2,85,442 | ... | ... | 2,85,442 | ... | ... | 2,85,442 |
| WORKS FOR WHICH REVENUE ACCOUNTS ARE KEPT. | | | | | | | | | | |
| 14 | Lower Sutlej Inundation Canals. | 400 | 807 | ... | 1895 | Were in operation prior to annexation of the Punjab by the British. | ... | ... | 75,14,240 | ... |
| 15 | Muzaffargarh Inundation Canals. | 417 | 740 | ... | 1896 | | ... | ... | 79,27,309 | ... |
| 16 | Chenab Inundation Canals. | 287 | 68 | ... | 1895 | | ... | ... | 60,02,447 | ... |
| | Total | 1,084 | 1,110 | ... | ... | ... | ... | ... | 2,28,43,998 | ... |
| Provincial. | | | | | | | | | | |
| 17 | Shahpur Canal. | 50 | 52 | ... | ... | ... | ... | ... | 2,54,880 | ... |
| 18 | Ravi Canal. | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Total | 50 | 52 | ... | ... | ... | ... | ... | 2,54,880 | ... |

*Opened as an Inundation Canal in 1887
(a) Includes 4 miles and (b) 45 miles of

C.

WORKS FOR, AND UP TO THE END OF, 1916-17.

| FINANCIAL RESULTS OF THE YEAR 1916-17. | | | | | | | | | |
|--|---|--------------|--|---|---|-------------|-------------|-----------------|--|
| Gross receipts (direct and indirect), | Working expenses (direct and indirect), | Net revenue, | Percentage on Capital outlay, column 10. | Percentage on annual charge, column 10. | Interest at 3-2,504 per cent. on direct Capital outlay to end of previous year, plus half the outlay of the year. | Net profit. | Net loss. | Area irrigated. | Percentage of working expenses to receipts (column 11 to column 12). |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Rs. | Rs. | Rs. | % | % | Rs. | Rs. | Rs. | Acres. | % |
| 81,51,750 | 13,50,021 | 17,95,729 | 10.15 | 10.15 | 5,56,529 | 12,39,200 | ... | 748,588 | 43.02 |
| 1,398 | 62,410 | -61,074 | 5.26 | 5.26 | ... | ... | 81,074 | 70,869 | 4671.040 |
| 43,03,675 | 13,87,150 | 29,76,525 | 11.63 | 11.63 | 8,03,114 | 21,78,412 | ... | 8,91,781 | 31.78 |
| 72,523 | 4,83,133 | -4,09,607 | 2.86 | 2.86 | ... | ... | 4,09,007 | 5,33,959 | 804.77 |
| 52,08,561 | 14,19,120 | 37,69,789 | 17.35 | 17.35 | 6,96,049 | 30,93,089 | ... | 12,01,237 | 27.24 |
| 9,61,893 | 0,20,350 | 3,38,537 | 1.55 | 1.33 | 6,93,682 | ... | 3,55,145 | 5,14,938 | 84.91 |
| 25,63,550 | 5,39,261 | 17,23,289 | 4.63 | 4.15 | 11,20,548 | 6,04,788 | ... | 4,37,477 | 32.63 |
| 1,68,32,103 | 27,19,783 | 1,41,10,320 | 43.61 | 43.81 | 10,31,083 | 1,30,78,352 | ... | 22,88,729 | 15.16 |
| 83,031 | 0,10,795 | 5,57,164 | 1.27 | 1.05 | 13,94,250 | ... | 19,51,424 | 1,17,005 | 766.21 |
| 47,33,593 | 9,83,962 | 37,54,631 | 23.56 | 23.50 | 5,12,931 | 32,41,710 | ... | 8,04,701 | 20.76 |
| 6,08,994 | 4,41,503 | 1,67,396 | 9.19 | 9.19 | 56,631 | 1,10,702 | ... | 8,18,151 | 72.50 |
| 5,59,749 | 1,59,012 | 4,30,737 | 32.23 | 32.25 | 42,023 | 3,89,114 | ... | 2,08,556 | 20.96 |
| 5,28,300 | 3,93,601 | 1,29,505 | 4.95 | 3.51 | 65,519 | 34,180 | ... | 2,65,158 | 75.44 |
| 3,90,31,912 | 1,09,79,471 | 2,86,61,441 | 12.59 | 11.93 | 70,09,847 | 2,39,54,103 | 28,00,580 | 78,50,039 | 37.68 |
| 73,862 | 5,41,543 | -4,70,681 | 3.04 | 3.04 | ... | ... | 2,18,57,694 | 4,70,081 | 0.18,828 |
| 1,15,018 | 47,175 | 67,843 | 31.42 | 31.42 | 0,788 | 01,055 | .. | 46,769 | 41.01 |
| 21,850 | 80,450 | -8,630 | 2.29 | 7.69 | 12,043 | ... | 20,678 | 23,327 | 189.49 |
| ... | 3,105 | -3,105 | 1.09 | 1.09 | ... | ... | 3,105 | 12,040 | ... |
| 1,36,868 | 77,055 | 59,213 | 10.00 | 3.55 | 13,531 | 01,055 | 20,073 | 75,096 | 56.73 |
| ... | 3,105 | -3,105 | 1.09 | 1.09 | ... | ... | 40,932 | 3,105 | 12,040 |
| 6,26,728 | 2,89,727 | 3,87,601 | ... | ... | ... | 3,87,001 | ... | 3,63,884 | 36.25 |
| 7,53,898 | 3,51,420 | 4,02,472 | ... | ... | ... | 4,02,472 | ... | 3,98,458 | 46.61 |
| 4,43,797 | 1,55,754 | 2,58,033 | ... | ... | ... | 2,88,033 | ... | 2,05,075 | 35.09 |
| 18,24,423 | 7,40,917 | 10,77,506 | ... | ... | ... | 10,77,506 | ... | 9,67,417 | 40.93 |
| 45,465 | 47,809 | 2,144 | ... | ... | ... | ... | 2,144 | 31,401 | 104.71 |
| 3,222 | 2,401 | 818 | ... | ... | ... | 818 | ... | ... | 74.61 |
| 48,087 | 50,018 | -1,920 | ... | ... | ... | 818 | 2,144 | 31,401 | 103.72 |

and as a Perennial Canal in 1892,
the Lower Chautang Nala Canal.

III C.

STATEMENT SHOWING DEMANDS AND REALIZATIONS IN THE PUNJAB PROVINCE
FOR THE YEAR 1916-17.

| Name of Canal. | Balance of demands remaining unrealized at the commencement of the year. | Demands during the year. | Total. | Deducted remissions not including cash refunds. | Net amount. | Actual realizations. | Amount unrealized at the close of the year. |
|--|--|--------------------------|-------------|---|-------------|----------------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| XXIX—MAJOR WORKS— | | | | | | | |
| DIRECT RECEIPTS. | | | | | | | |
| <i>Water or occupier's rate.</i> | | | | | | | |
| Western Jumna Canal ... | 1,499 | 29,32,402 | 29,33,901 | 41,077 | 27,69,224 | 27,79,447 | 9,777 |
| Sirhind Canal ... | 1,35,496 | 39,74,458 | 41,09,954 | 1,32,891 | 39,77,063 | 39,53,965 | 29,099 |
| Upper Bari Doab Canal ... | 14,966 | 43,05,357 | 43,20,323 | 97,202 | 42,23,031 | 42,07,119 | 15,912 |
| Lower Bari Doab Canal ... | 4,516 | 11,70,077 | 11,74,593 | 7,37,000 | 7,30,591 | 7,31,730 | 1,864 |
| Upper Chenab Canal ... | 5,973 | 25,23,417 | 25,29,390 | 2,05,303 | 23,24,087 | 22,85,015 | 39,042 |
| Lower Chenab Canal .. | —1,593 | 67,31,433 | 67,29,840 | 63,810 | 89,06,521 | 80,63,030 | 3,435 |
| Upper Jhelum Canal .. | ... | 1,43,293 | 1,43,299 | 71,697 | 70,599 | 74,703 | 1,806 |
| Lower Jhelum Canal ... | 5,737 | 29,12,064 | 29,17,801 | 2,421 | 29,15,377 | 29,10,119 | 5,259 |
| Sidhwal Canal ... | 3,173 | 4,51,110 | 4,57,293 | ... | 4,57,292 | 4,54,164 | 3,129 |
| Upper Sutlej Inundation Canals ... | 5,069 | 4,01,760 | 4,09,829 | 21,891 | 3,81,938 | 3,78,000 | 6,809 |
| Indus Inundation Canals ... | 53,720 | 2,38,905 | 2,92,625 | 10 | 2,92,607 | (a) 2,49,337 | 43,270 |
| Total occupier's rates ... | 2,28,550 | 2,70,55,289 | 2,82,23,845 | 13,80,512 | 2,68,43,333 | 2,66,89,821 | 1,59,509 |
| <i>Owner's rate.</i> | | | | | | | |
| Lower Chenab Canal ... | ... | 20,542 | 20,542 | ... | 20,542 | 6,829 | 11,213 |
| XXX—MINOR WORKS AND NAVIGATION. | | | | | | | |
| Lower Sutlej Inundation Canals ... | 177 | 2,91,100 | 2,91,277 | ... | 2,91,277 | 2,91,210 | 67 |
| Muzaffargarh Inundation Canals .. | 187 | 3,25,220 | 3,25,407 | 33 | 3,25,371 | 3,22,655 | 2,710 |
| Chenab Inundation Canals ... | 3,205 | 1,91,378 | 1,97,583 | ... | 1,97,593 | 1,93,725 | 3,858 |
| Hafizwal Canal ... | ... | 22,421 | 22,124 | ... | 22,421 | 22,421 | ... |
| Shahpur Inundation Canals ... | —10 | 81,520 | 81,510 | 4,214 | 80,305 | 80,815 | —10 |
| Ghaggar Inundation Canals ... | .. | 21,775 | 21,578 | 2,698 | 21,880 | 21,347 | 533 |
| Total ... | 8,559 | 9,45,229 | 9,45,788 | 6,945 | 9,41,843 | 9,35,176 | 6,607 |
| PROVINCIAL. | | | | | | | |
| Shahpur Canal ... | 43 | 31,845 | 31,888 | ... | 31,888 | 31,882 | —4 |
| Ravi Canal ... | ... | ... | ... | ... | ... | ... | ... |
| Total ... | 43 | 31,845 | 31,888 | ... | 31,888 | 31,882 | —4 |

(a) Includes Rs. 55,094 on account of Dhundi Estate.

IV C.

STATEMENT SHOWING THE FINANCIAL RESULTS OF THE IRRIGATION WORKS IN THE PUNJAB PROVINCE FOR THE YEAR 1916-17 BASED ON ASSESSMENTS OF THE YEAR 1916-17 AND FINANCIAL RESULTS OF THE OPERATIONS FOR THE YEAR ENDING 31st MARCH 1917.

| IRRIGATION WORKS. | Capital outlay direct and indirect to end of the year 1916-17. | REVENUE ASSESSED DURING THE YEAR. | | | | | | | | | | Working expenses direct and indirect. | Not assessed revenue of the year. | Percentage on capital outlay to end of the year. |
|--|--|-----------------------------------|-------------------|----------------------|---------------------|----------------------|------------------------|------------------------------|------------------------|------------------------------|------------------------------|---------------------------------------|-----------------------------------|--|
| | | DIRECT ASSESSED RECEIPTS. | | | | | | | | | | | | |
| | | Occupier's rate. | Owner's rate. | Plantation. | Water power. | Navigation. | Miscellaneous. | Total. | Indirect charges. | Grand total. | | | | |
| | | | | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | |
| PRODUCTIVE WORKS. | | | | | | | | | | | | | | |
| Western Jemna Canal (Imperial ... Including Sindh Branch. Contribution) | Rs. 1,70,63,766 11,60,479 | Rs. 27,41,609 2,79,376 | Rs. | Rs. 22,830 335 | Rs. 3,320 273 | Rs. 73,593 ... | Rs. 65,802 3,189 | Rs. 20,00,735 2,82,072 | Rs. 2,09,310 ... | Rs. 21,16,016 2,82,072 | Rs. 13,56,021 1,63,037 | Rs. 17,00,021 1,76,436 | Rs. 0.94 16.89 | |
| Sirhind Canal {Imperial ... Contribution | 2,56,02,613 1,43,17,250 | 36,81,368 23,17,600 | ... ... | 31,311 20,821 | 1,03,000 41,750 | 0,703 5,310 | 1,22,530 33,310 | 36,01,932 21,23,959 | 1,42,701 ... | 36,44,723 21,23,959 | 13,87,160 0,48,063 | 25,87,573 14,60,823 | 0.90 10.34 | |
| Upper Bari Doab Canal ... | 2,18,37,859 | 41,21,050 | ... | 23,933 | 1,10,457 | ... | 1,07,907 | 41,60,310 | 6,00,873 | 61,29,231 | 14,10,120 | 37,16,105 | 18.99 | |
| Lower " " " | 2,18,74,263 | 10,77,410 | ... | 3,073 | ... | ... | 21,903 | 11,01,893 | 2,02,021 | 13,07,919 | 6,20,358 | 9,81,468 | 3.11 | |
| Upper Chenab Canal ... | 3,63,42,181 | 22,67,410 | ... | 421 | ... | ... | 23,478 | 23,11,312 | 6,04,987 | 29,06,299 | 8,83,284 | 20,86,036 | 6.82 | |
| Lower " " " | 0,23,65,618 | 63,62,146 | - 0,012 | 16,070 | 14,420 | ... | 67,612 | 94,71,015 | 74,19,563 | 1,68,83,178 | 27,10,783 | 1,31,73,393 | 40.71 | |
| Upper Jhelum Canal ... | 4,36,49,917 | 3,01,100 | ... | 2 | ... | ... | 8,811 | 3,69,043 | ... | 3,69,043 | 6,40,705 | -2,70,852 | -0.63 | |
| Lower " " " | 1,59,33,108 | 27,31,670 | ... | 4,210 | 32,077 | ... | 26,071 | 27,06,634 | 17,01,683 | 45,00,617 | 0,83,062 | 56,76,555 | 23.11 | |
| Upper Sutlej Irrigation Canals ... | 16,10,593 | 4,04,149 | ... | 6,078 | ... | ... | 0,950 | 4,10,110 | 2,23,450 | 6,32,560 | 4,41,369 | 2,01,193 | 11.06 | |
| Siddhal Irrigation Canal ... | 13,36,400 | 4,00,823 | ... | 237 | ... | ... | 4,358 | 5,01,408 | 1,31,311 | 6,32,612 | 1,60,012 | 4,73,600 | 25.47 | |
| Indus Irrigation Canals ... | 20,63,361 | 2,27,705 | ... | 2,327 | ... | ... | 69,830 | 2,80,931 | 3,73,500 | 6,53,431 | 3,08,604 | 1,04,827 | 1.53 | |
| TOTAL {Imperial ... Contribution | 23,00,10,193 1,51,77,707 | 3,63,63,837 25,95,863 | - 0,012 ... | 1,16,432 21,166 | 2,74,160 47,003 | 83,381 6,340 | 1,01,490 39,638 | 3,71,36,137 27,06,069 | 1,10,19,403 ... | 3,00,65,504 27,03,033 | 1,09,50,477 10,46,700 | 5,60,66,129 16,50,258 | 12.73 10.72 | |
| WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT. | | | | | | | | | | | | | | |
| Shahpur Canals ... | 2,16,011 | 1,69,490 | ... | 23 | ... | ... | 6 | 1,00,617 | 42,082 | 1,51,699 | 47,176 | 1,01,421 | 48.38 | |
| Ghaggar Canals {Imperial ... Contribution | 3,70,129 2,85,432 | 22,673 27,016 | ... ... | ... ... | ... ... | ... ... | 3 1,987 | 22,678 27,063 | ... ... | 22,678 27,063 | 30,480 8,130 | -7,002 10,823 | -2.10 0.7 | |
| TOTAL {Imperial ... Contribution | 5,02,017 2,85,432 | 1,32,001 27,016 | ... ... | 23 ... | ... ... | ... ... | 9 337 | 1,22,995 27,063 | 42,082 ... | 1,51,177 27,063 | 77,655 8,130 | 90,822 16,823 | 10.30 6.1 | |
| WORKS FOR WHICH ONLY REVENUE ACCOUNTS ARE KEPT. | | | | | | | | | | | | | | |
| Lower Sutlej Irrigation Canals ... | ... | 3,61,272 | ... | 3,405 | ... | ... | 2,046 | 3,56,533 | 3,05,700 | 6,01,633 | 2,90,727 | 4,21,625 | ... | |
| Chenab Irrigation Canals ... | ... | 2,14,431 | ... | 1,003 | ... | ... | 1,616 | 2,17,013 | 2,40,793 | 4,64,738 | 1,65,781 | 3,08,074 | ... | |
| Muzaffargarh Irrigation Canals ... | ... | 3,22,067 | ... | 12,117 | ... | ... | 3,650 | 3,37,630 | 4,10,010 | 7,54,240 | 3,61,426 | 4,02,823 | ... | |
| Total ... | ... | 6,69,650 | ... | 10,516 | ... | ... | 6,306 | 6,11,423 | 6,00,114 | 12,60,630 | 7,40,017 | 11,33,622 | ... | |
| PROVINCIAL WORKS FOR WHICH ONLY REVENUE ACCOUNTS ARE KEPT. | | | | | | | | | | | | | | |
| Shahpur Canals ... | ... | 49,600 | ... | ... | ... | ... | 600 | 60,100 | 20,038 | 71,647 | 47,600 | 23,436 | ... | |
| Ravi Irrigation Canals... .. | ... | ... | ... | ... | ... | ... | ... | ... | 6,323 | 3,272 | 2,401 | 818 | ... | |
| Total ... | ... | 49,600 | ... | ... | ... | ... | 600 | 60,100 | 24,100 | 71,260 | 50,013 | 24,250 | ... | |

*Includes Rs. 0,025 spent by the Bikaner State.
†Figures reported by the Bikaner State.

I. D.

STATEMENT OF TRAFFIC ON CANALS IN THE PUNJAB DURING THE YEAR 1916-17.

| Particulars. | Western Jumna Canal. | Sirhind Canal. |
|---|----------------------|----------------|
| Length of channel open for navigation ... Miles | 121 | 138 |
| Receipts— | | |
| Tollage on private boats ... Rs. | ... | 2,622 |
| „ „ Government boats ... „ | ... | 70 |
| „ „ rafts ... „ | 73,586 | 12,449 |
| Carrying operations or transport service— | | |
| Hire of Government boats ... „ | ... | ... |
| Refund of revenno ... „ | ... | ... |
| Total receipts ... „ | 73,586 | 15,141 |
| Maintenance charges, including special Navigation Establishment „ | 5,357 | 3,627 |
| Net Revenue of year ... „ | 68,229 | 11,514 |
| Total number of boats plying cargo ... | ... | ... |
| „ „ „ „ passengers ... | ... | ... |
| Total registered tonnage cargo ... | ... | ... |
| „ „ „ „ passengers ... | ... | ... |
| Ton mileage, Up (a) ... | ... | ... |
| Down ... | ... | ... |
| Total ... | ... | ... |
| Estimated value of cargoes, Up (a) ... Rs. | ... | ... |
| „ „ „ Down ... „ | ... | ... |
| Total ... „ | ... | ... |
| Number of passengers .. | ... | 18,409 |
| Rafts, Up ... C. ft | ... | ... |
| „ Down ... „ | 3,305,050 | 1,284,072 |
| Total ... „ | 3,305,050 | 1,284,072 |
| Estimated value of rafts ... Rs. | 88,80,944 | 9,24,557 |
| Tollage on boats per ton per mile (a) ... | ... | ... |
| „ „ rafts per 100 c. ft. ... | 2-23 | 0-97 |

(a) Details of boat traffic are not recorded (Government of India, Public Works Department, No. 78-I, dated 22nd April 1892).

II D.

DESCRIPTION AND QUANTITIES OF RAFT TRAFFIC ON CANALS IN THE PUNJAB DURING THE YEAR 1916-17.

| Particulars. | WESTERN JUMNA CANAL. | | | | | | SARINDH CANAL. | | | | | | TOTAL. | | | | | |
|-----------------------------------|----------------------|--------|--------|-----------|--------|-----------|-------------------|--------|--------|----------|--------|----------|-------------------|--------|--------|-----------|--------|-----------|
| | TOTAL. | | | PRIVATE. | | | TOTAL. | | | PRIVATE. | | | TOTAL. | | | PRIVATE. | | |
| | Quantity in tons. | | | Value. | | | Quantity in tons. | | | Value. | | | Quantity in tons. | | | Value. | | |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 1 | Up. | Down. | Total. | Rs. | Tons. | Rs. | Up. | Down. | Total. | Rs. | Tons. | Rs. | Up. | Down. | Total. | Rs. | Tons. | Rs. |
| Timber in logs, round and squared | ... | 191 | 124 | 7,440 | 124 | 7,440 | ... | 630 | 620 | 45,110 | 631 | 43,750 | ... | 774 | 774 | 52,550 | 755 | 51,220 |
| Stoppers, broad gauge | ... | 35,363 | 35,322 | 25,80,533 | 35,403 | 25,34,533 | ... | 19,069 | 18,059 | 6,77,221 | 17,900 | 6,72,203 | ... | 53,131 | 33,491 | 35,14,054 | 53,293 | 33,09,841 |
| " metre " | ... | 12,750 | 12,700 | 7,61,054 | 12,750 | 7,61,054 | ... | 3,632 | 3,632 | 95,330 | 3,794 | 94,910 | ... | 10,432 | 10,422 | 8,50,380 | 16,364 | 8,35,895 |
| Scantlings | ... | 14,310 | 14,310 | 2,95,917 | 14,310 | 2,95,917 | ... | 1,553 | 1,932 | 1,00,500 | 1,850 | 1,04,700 | ... | 10,162 | 16,162 | 4,02,617 | 16,130 | 4,00,617 |
| Bamboos and reeds | ... | ... | ... | ... | ... | ... | ... | 4 | 6 | 90 | 6 | 90 | ... | 6 | 6 | 90 | 8 | 90 |
| Firewood | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Total | ... | 62,650 | 62,568 | 39,90,914 | 62,656 | 39,90,914 | ... | 24,209 | 24,209 | 9,24,557 | 23,951 | 9,13,218 | ... | 80,705 | 80,795 | 49,03,501 | 86,587 | 47,98,163 |

I-E. with Appendix A.

STATEMENT OF AREAS IRRIGATED BY IRRIGATION WORKS IN THE PUNJAB DURING THE YEAR 1916-17.

| NAMES OF CANALS. | NUMBER OF DRAINAGE WORKS. | AREA IRRIGATED, IN ACRES. | | | | | | | | | | AVERAGE DISCHARGE, IN CUSECS. | | | | AREA IRRIGATED, PER CUSEC. | | | |
|---|---------------------------------|---------------------------|---------------------------|--------------------|---------------------------|--------------------|---------------------------|-----------|-----------|----------------|---------|----------------------------------|-------|---------------------------|-------|--------------------------------------|-----|--------------------------------|-----|
| | | Kharif. | | Rabi. | | Total. | | Flow. | Mile. | Doubt- ful. | | At Head of Trenches. | | At Distributary Heads. | | At Head of Trenches as Capped. | | At Distrib- utary Heads. | |
| | | | | | | | | | | | | | | | | | | | |
| | | Area Irrigated. | Area Not Irrigated. | Area Irrigated. | Area Not Irrigated. | Area Irrigated. | Area Not Irrigated. | | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Major Irrigation Works. | | | | | | | | | | | | | | | | | | | |
| Western Jhelum Canal (including Sialkot Branch, Jhelum and Pothohar). | 101 | 173 | 317,913 | 349,674 | 170,744 | 459,975 | 423,437 | 317,723 | 317,723 | 11,120 | 62,929 | 7-59 | 2,590 | 3,208 | 2,165 | 2,605 | 120 | 150 | 184 |
| Sialkot Canal (Jhelum) .. | 125 | 184 | 333,790 | 320,774 | 27,410 | 320,774 | 301,784 | 341,250 | 341,250 | 3,337 | 290,469 | 22-47 | 3,615 | 3,031 | 2,755 | 2,602 | 92 | 183 | 210 |
| " " (Pothohar, Nalla and Jhelum) .. | 125 | 184 | 211,114 | 210,425 | 31,275 | 231,975 | 231,975 | 320,600 | 321,010 | 2,913 | 199,961 | 22-78 | 2,151 | 1,813 | 2,170 | 1,923 | 83 | 178 | 199 |
| Upper Bari Doab Canal .. | 119 | 182 | 579,209 | 511,721 | 31,294 | 617,483 | 1,201,197 | 1,121,221 | 1,151,221 | 10,633 | 214,610 | 20-33 | 1,563 | 2,219 | 3,911 | 1,726 | 117 | 255 | 368 |
| Lower Bari Doab Canal .. | 171 | 173 | 218,413 | 122,125 | 25,403 | 142,716 | 61,491 | 272,911 | 319,507 | 1,429 | 12,508 | 2-4 | 3,122 | 1,779 | 2,429 | 1,423 | 70 | 149 | 102 |
| Upper Chenab Canal .. | 101 | 182 | 1-2,917 | 270,159 | 151,769 | 137,914 | 4,747 | 317,493 | 331,731 | 2,743 | 16,311 | 3-73 | 2,913 | 2,114 | 2,415 | 1,678 | 67 | 72 | 117 |
| Lower Chenab Canal .. | 117 | 171 | 717,270 | 712,121 | 1,571,479 | 1,25,479 | 32-4729 | 2,153,513 | 2,153,513 | 26,011 | 163,973 | 7-17 | 9,653 | 9,929 | 7,617 | 5,565 | 79 | 230 | 234 |
| Upper Jhelum Canal .. | 160 | 182 | 93,413 | 2,012 | 75,101 | 72,177 | 117,565 | 111,189 | 117,623 | .. | 3,121 | 2-71 | 493 | 200 | 369 | 475 | 72 | 110 | 115 |
| Lower Jhelum Canal .. | 168 | 182 | 23,427 | 216,113 | 24,561 | 238,471 | 64,761 | 735,818 | 735,818 | 2,712 | 16,513 | 2-63 | 2,763 | 2,618 | 2,251 | 2,350 | 89 | 216 | 242 |
| Upper Sutlej Canal .. | 147 | 182 | 122,579 | 142,383 | 160,291 | 170,491 | 313,161 | 262,917 | 310,145 | 3,665 | 31,105 | 10-0 | 2,668 | .. | 6,487 | .. | 117 | .. | 147 |
| Sidhwal Canals .. | 63 | 15 | 111,233 | 99,525 | 153,253 | 150,039 | 298,526 | 249,191 | 211,197 | 6,297 | 631 | 0-23 | 1,895 | .. | 1,305 | .. | 214 | .. | 214 |
| Indus Irrigation Canals .. | 112 | 25 | 179,011 | 140,170 | 95,217 | 67,910 | 73,123 | 268,359 | 232,771 | 12,391 | 6,607 | 2-3 | 3,314 | .. | 8,314 | .. | 59 | .. | 59 |
| Total .. | .. | .. | 3,431,657 | 3,321,223 | 3,321,223 | 4,769,192 | 9,193,867 | 7,909,695 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Minor Irrigation Works. | | | | | | | | | | | | | | | | | | | |
| Shabhar (Imperial) Irrigation Canals .. | 170 | .. | 12,063 | 19,207 | 270,59 | 23,671 | 10,709 | 11,851 | 10,707 | 62 | 793 | 1-0 | 570 | .. | 570 | .. | 53 | .. | 53 |
| Obaggar Irrigation Canals (British) .. | 67 | 26 | 10,137 | 9,121 | 18,099 | 17,309 | 23,127 | 23,720 | 23,227 | .. | .. | .. | 725 | .. | 725 | .. | 39 | .. | 39 |
| " " (British) .. | .. | .. | 3,251 | 3,251 | 8,704 | 9,694 | 12,717 | 16,232 | 12,910 | .. | 727 | 0-63 | 231 | .. | 231 | .. | 51 | .. | 51 |
| Lower Sutlej Irrigation Canals .. | 151 | 18 | 120,671 | 127,192 | 214,311 | 154,123 | 3,3748 | 320,611 | 312,526 | 21,053 | 17 | 405 | 3,405 | .. | 3,465 | .. | 105 | .. | 105 |
| Chowah Irrigation Canals .. | 107 | .. | 14,776 | 76,765 | 111,719 | 11,171 | 26,742 | 140,711 | 172,371 | 2,331 | 608 | 0-31 | 2,355 | .. | 2,385 | .. | 88 | .. | 88 |
| Musafargah Irrigation Canals .. | 179 | 17 | 100,639 | 125,621 | 223,779 | 215,619 | 298,453 | 270,672 | 294,115 | 1,013 | 23,730 | 13-6 | 5,331 | .. | 5,331 | .. | 72 | .. | 72 |
| Shabhar (Provincial) Irrigation Canals .. | 122 | .. | 6,453 | 6,719 | 21,519 | 23,025 | 31,104 | 29,715 | 31,104 | .. | 27 | 0-09 | 403 | .. | 403 | .. | 73 | .. | 73 |
| Total .. | .. | .. | 452,318 | 197,452 | 633,669 | 655,615 | 1,085,937 | 933,697 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |

APPENDIX A TO STATEMENT I. E.

STATEMENT SHOWING AREAS ON WHICH OCCUPIERS' RATES WERE REMITTED DURING THE YEAR 1916-17.

| CAUSE OF REMISSION. | Kharif, 1916. | | | | Rabi, 1916-17. | | | |
|------------------------------------|----------------|----------------|-----------------------|----------------------|----------------|----------------|-----------------------|----------------------|
| | Area assessed. | Area remitted. | Total area irrigated. | Percentage remitted. | Area assessed. | Area remitted. | Total area irrigated. | Percentage remitted. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| WESTERN JUMNA CANAL. | | | | | | | | |
| 1. Wrong assessment ... | Acres. | Acres. | Acres. | | Acres. | Acres. | Acres. | |
| 2. Escape irrigation ... | ... | 53 | ... | ... | ... | 53 | ... | ... |
| 3. Under Tenancy Rules ... | ... | 210 | ... | ... | ... | 16 | ... | ... |
| 4. Short supply ... | ... | 1 | ... | ... | ... | 1 | ... | ... |
| 5. Hail ... | ... | 2,110 | ... | ... | ... | 1,060 | ... | ... |
| 6. Frost ... | ... | 5 | ... | ... | ... | ... | ... | ... |
| 7. High wind ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 8. Flooding { (a) by heavy rain | ... | 247 | ... | ... | ... | 90 | ... | ... |
| { (b) from canal | ... | 31 | ... | ... | ... | 17 | ... | ... |
| 9. Rats ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 10. Locusts ... | ... | 83 | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight ... | ... | 910 | ... | ... | ... | 204 | ... | ... |
| 12. Bad germination or cultivation | ... | 414 | ... | ... | ... | 51 | ... | ... |
| 13. Bad soil ... | ... | 21 | ... | ... | ... | 18 | ... | ... |
| 14. High land ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 15. Miscellaneous ... | ... | 123 | ... | ... | ... | 302 | ... | ... |
| Total ... | 342,058 | (A) 4,855 | 217,913 | 1.39 | 478,005 | (A) 1,879 | 450,544 | 0.39 |
| SIRHIND CANAL (IMPERIAL). | | | | | | | | |
| 1. Wrong assessment ... | ... | 10 | ... | ... | ... | 19 | ... | ... |
| 2. Escape irrigation ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 3. Under Tenancy Rules ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 4. Short supply ... | ... | 23 | ... | ... | ... | 4,801 | ... | ... |
| 5. Hail ... | ... | 22 | ... | ... | ... | 596 | ... | ... |
| 6. Frost ... | ... | ... | ... | ... | ... | 38 | ... | ... |
| 7. High wind ... | ... | 29 | ... | ... | ... | 13 | ... | ... |
| 8. Flooding { (a) by heavy rain | ... | 23 | ... | ... | ... | ... | ... | ... |
| { (b) from canal | ... | 3 | ... | ... | ... | 28 | ... | ... |
| 9. Rats ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 10. Locusts ... | ... | 11 | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight ... | ... | 2,108 | ... | ... | ... | 495 | ... | ... |
| 12. Bad germination or cultivation | ... | 23 | ... | ... | ... | 34 | ... | ... |
| 13. Bad soil ... | ... | ... | ... | ... | ... | 5 | ... | ... |
| 14. High land ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 15. Miscellaneous ... | ... | 317 | ... | ... | ... | 1,740 | ... | ... |
| Total ... | 330,776 | 2,814 | 333,591 | 0.84 | 550,703 | 7,429 | 558,191 | 1.33 |
| UPPER BARI DOAB CANAL. | | | | | | | | |
| 1. Wrong assessment ... | ... | 29 | ... | ... | ... | 23 | ... | ... |
| 2. Escape irrigation ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 3. Under Tenancy Rules ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 4. Short supply ... | ... | 49 | ... | ... | ... | 12,511 | ... | ... |
| 5. Hail ... | ... | ... | ... | ... | ... | 1,376 | ... | ... |
| 6. Frost ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 7. High wind ... | ... | ... | ... | ... | ... | 160 | ... | ... |
| 8. Flooding { (a) by heavy rain | ... | 8,102 | ... | ... | ... | 81 | ... | ... |
| { (b) from canal | ... | ... | ... | ... | ... | ... | ... | ... |
| 9. Rats ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 10. Locusts ... | ... | 55 | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight ... | ... | 5,183 | ... | ... | ... | 41 | ... | ... |
| 12. Bad germination or cultivation | ... | 59 | ... | ... | ... | 2 | ... | ... |
| 13. Bad soil ... | ... | 42 | ... | ... | ... | 137 | ... | ... |
| 14. High land ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 15. Miscellaneous ... | ... | 669 | ... | ... | ... | 174 | ... | ... |
| Total ... | 554,733 | 14,555 | 569,308 | 2.64 | 617,183 | 14,508 | 631,991 | 2.32 |
| LOWER BARI DOAB CANAL. | | | | | | | | |
| 1. Wrong assessment ... | ... | 131 | ... | ... | ... | 73 | ... | ... |
| 2. Escape irrigation ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 3. Under Tenancy Rules ... | ... | 92,100 | ... | ... | ... | 80,207 | ... | ... |
| 4. Short supply ... | ... | 607 | ... | ... | ... | 7,818 | ... | ... |
| 5. Hail ... | ... | ... | ... | ... | ... | 873 | ... | ... |
| 6. Frost ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 7. High wind ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 8. Flooding { (a) by heavy rain | ... | 125 | ... | ... | ... | 10 | ... | ... |
| { (b) from canal | ... | 59 | ... | ... | ... | 70 | ... | ... |
| 9. Rats ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 10. Locusts ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight ... | ... | 1,616 | ... | ... | ... | 854 | ... | ... |
| 12. Bad germination or cultivation | ... | 2,244 | ... | ... | ... | 5,593 | ... | ... |
| 13. Bad soil ... | ... | 14,426 | ... | ... | ... | 18,363 | ... | ... |
| 14. High land ... | ... | 203 | ... | ... | ... | 497 | ... | ... |
| 15. Miscellaneous ... | ... | 6,775 | ... | ... | ... | 9,170 | ... | ... |
| Total ... | 180,125 | 118,319 | 218,447 | 47.05 | 142,710 | 123,777 | 288,493 | 40.45 |

(A) Detail of area remitted:—

| | Kharif. | Rabi. |
|---------------------------|---------|-------|
| In the four Divisions ... | 4,439 | 1,824 |
| In Patiala State ... | 242 | 19 |
| In Jind State ... | 176 | 42 |
| Total ... | 4,855 | 1,879 |

STATEMENT SHOWING AREAS ON WHICH OCCUPIERS' RATES WERE REMITTED
DURING THE YEAR 1916-17—CONTINUED.

| CAUSE OF REMISSION. | KHAMPT, 1916. | | | | RABT, 1916-17. | | | |
|---|----------------|----------------|-----------------------|----------------------|----------------|----------------|-----------------------|----------------------|
| | Area assessed. | Area remitted. | Total area irrigated. | Percentage remitted. | Area assessed. | Area remitted. | Total area irrigated. | Percentage remitted. |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| UPPER CHENAB CANAL. | | | | | | | | |
| 1. Wrong assessment | Acres. | Acres. | Acres. | | Acres. | Acres. | Acres. | |
| 2. Escape irrigation | ... | 80 | ... | ... | ... | 12 | ... | ... |
| 3. Under Tenancy Rules | ... | ... | ... | ... | ... | ... | ... | ... |
| 4. Short supply | ... | 730 | ... | ... | ... | 13,160 | ... | ... |
| 5. Hail | ... | 1,000 | ... | ... | ... | 120 | ... | ... |
| 6. Frost | ... | ... | ... | ... | ... | ... | ... | ... |
| 7. High wind | ... | ... | ... | ... | ... | ... | ... | ... |
| 8. Flooding { (a) by heavy rain (b) from canal | ... | 993 | ... | ... | ... | 2 | ... | ... |
| 9. Rats | ... | ... | ... | ... | ... | ... | ... | ... |
| 10. Locusts | ... | 355 | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight | ... | ... | ... | ... | ... | ... | ... | ... |
| 12. Bad germination or cultivation | ... | 609 | ... | ... | ... | ... | ... | ... |
| 13. Bad soil | ... | 2,027 | ... | ... | ... | 281 | ... | ... |
| 14. High land | ... | ... | ... | ... | ... | ... | ... | ... |
| 15. Miscellaneous | ... | ... | ... | ... | ... | ... | ... | ... |
| 16. Perpetual remission | ... | 016 | ... | ... | ... | 60 | ... | ... |
| 17. Dog Nallah | ... | ... | ... | ... | ... | ... | ... | ... |
| Total | 270,479 | 6,488 | 265,917 | 2.25 | 137,614 | 13,640 | 161,660 | 9.6 |
| LOWER CHENAB CANAL. | | | | | | | | |
| 1. Wrong assessment | ... | ... | ... | ... | ... | ... | ... | ... |
| 2. Escape irrigation | ... | ... | ... | ... | ... | ... | ... | ... |
| 3. Under Tenancy Rules | ... | ... | ... | ... | ... | ... | ... | ... |
| 4. Short supply | ... | ... | ... | ... | ... | ... | ... | ... |
| 5. Hail | ... | 110 | ... | ... | ... | 31,302 | ... | ... |
| 6. Frost | ... | 107 | ... | ... | ... | 22,747 | ... | ... |
| 7. High wind | ... | ... | ... | ... | ... | ... | ... | ... |
| 8. Flooding { (a) by heavy rain (b) from canal | ... | 658 | ... | ... | ... | 10 | ... | ... |
| 9. Rats | ... | 8 | ... | ... | ... | 2 | ... | ... |
| 10. Locusts | ... | 112 | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight | ... | 8 | ... | ... | ... | ... | ... | ... |
| 12. Bad germination or cultivation | ... | 516 | ... | ... | ... | 78 | ... | ... |
| 13. Bad soil | ... | 349 | ... | ... | ... | 1,632 | ... | ... |
| 14. High land | ... | 186 | ... | ... | ... | 2,957 | ... | ... |
| 15. Miscellaneous | ... | 1,061 | ... | ... | ... | 155 | ... | ... |
| Total | 712,126 | 3,146 | 715,270 | 0.44 | 1,668,249 | 63,110 | 1,671,450 | 4.01 |
| UPPER JHELUM CANAL. | | | | | | | | |
| 1. Wrong assessment | ... | ... | ... | ... | ... | ... | ... | ... |
| 2. Escape irrigation | ... | ... | ... | ... | ... | ... | ... | ... |
| 3. Under Tenancy Rules | ... | ... | ... | ... | ... | ... | ... | ... |
| 4. Short supply | ... | ... | ... | ... | ... | ... | ... | ... |
| 5. Hail | ... | ... | ... | ... | ... | 2,760 | ... | ... |
| 6. Frost | ... | ... | ... | ... | ... | ... | ... | ... |
| 7. High wind | ... | ... | ... | ... | ... | ... | ... | ... |
| 8. Flooding { (a) by heavy rain (b) from canal | ... | 111 | ... | ... | ... | ... | ... | ... |
| 9. Rats | ... | 141 | ... | ... | ... | ... | ... | ... |
| 10. Locusts | ... | ... | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight | ... | ... | ... | ... | ... | ... | ... | ... |
| 12. Bad germination or cultivation | ... | 25 | ... | ... | ... | ... | ... | ... |
| 13. Bad soil | ... | 29 | ... | ... | ... | ... | ... | ... |
| 14. High land | ... | ... | ... | ... | ... | 126 | ... | ... |
| 15. Miscellaneous | ... | ... | ... | ... | ... | 130 | ... | ... |
| Total | 42,012 | 401 | 42,413 | 0.01 | 72,177 | 3,015 | 75,192 | 0.04 |
| LOWER JHELUM CANAL. | | | | | | | | |
| 1. Wrong assessment | ... | ... | ... | ... | ... | ... | ... | ... |
| 2. Escape irrigation | ... | ... | ... | ... | ... | ... | ... | ... |
| 3. Under Tenancy Rules | ... | 1,064 | ... | ... | ... | 1,012 | ... | ... |
| 4. Short supply | ... | 9 | ... | ... | ... | 3,804 | ... | ... |
| 5. Hail | ... | 2 | ... | ... | ... | 699 | ... | ... |
| 6. Frost | ... | ... | ... | ... | ... | ... | ... | ... |
| 7. High wind | ... | ... | ... | ... | ... | ... | ... | ... |
| 8. Flooding { (a) by heavy rain (b) from canal | ... | 3 | ... | ... | ... | ... | ... | ... |
| 9. Rats | ... | ... | ... | ... | ... | ... | ... | ... |
| 10. Locusts | ... | ... | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight | ... | ... | ... | ... | ... | ... | ... | ... |
| 12. Bad germination or cultivation | ... | 31 | ... | ... | ... | 433 | ... | ... |
| 13. Bad soil | ... | 1,358 | ... | ... | ... | 191 | ... | ... |
| 14. High land | ... | 101 | ... | ... | ... | ... | ... | ... |
| 15. Miscellaneous | ... | 10 | ... | ... | ... | 164 | ... | ... |
| Total | 237,413 | 2,584 | 239,997 | 1.08 | 559,871 | 5,803 | 564,764 | 1.04 |

STATEMENT SHOWING AREAS ON WHICH OCCUPIERS' RATES WERE REMITTED
DURING THE YEAR 1916-17—CONTINUED.

| CAUSE OF REMISSION. | KARNAT, 1916. | | | | RANI, 1916-17. | | | |
|---|----------------|------------------------------|-----------------------|----------------------|----------------|----------------|-----------------------|----------------------|
| | Area assessed. | Area remitted. | Total area irrigated. | Percentage remitted. | Area assessed. | Area remitted. | Total area irrigated. | Percentage remitted. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| UPPER SUTLEJ INUNDATION CANALS. | | | | | | | | |
| 1. Wrong assessment ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 2. Escape irrigation ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 3. Under Tenancy Rules ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 4. Short supply ... | ... | 4,912 | ... | ... | ... | ... | ... | ... |
| 5. Hail ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 6. Frost ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 7. High wind ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 8. Flooding { (a) by heavy rain (b) from canal ... | ... | 5,149 | ... | ... | ... | ... | ... | ... |
| 9. Rats ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 10. Locusts ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight ... | ... | 146 | ... | ... | ... | ... | ... | ... |
| 12. Bad germination or cultivation ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 13. Bad soil ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 14. High land ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 15. Miscellaneous ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Total ... | 142,876 | 10,101 | 152,977 | 6.7 | 160,591 | ... | 100,691 | ... |
| SIDHNAI CANALS. | | | | | | | | |
| 1. Wrong assessment ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 2. Escape irrigation ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 3. Under Tenancy Rules ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 4. Short supply ... | ... | 4,675 | ... | ... | ... | 23,166 | ... | ... |
| 5. Hail ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 6. Frost ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 7. High wind ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 8. Flooding { (1) by heavy rain (2) from canal (3) from river ... | ... | 43 | ... | ... | ... | ... | ... | ... |
| 9. Rats ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 10. Locusts ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight ... | ... | 71 | ... | ... | ... | ... | ... | ... |
| 12. Bad germination or cultivation ... | ... | 11,173 | ... | ... | ... | ... | ... | ... |
| 13. Bad soil ... | ... | ... | ... | ... | ... | 7,128 | ... | ... |
| 14. High land ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 15. Miscellaneous ... | ... | 75 | ... | ... | ... | 3,276 | ... | ... |
| Total ... | 98,596 | 16,037 | 114,633 | 18.95 | 150,998 | 32,025 | 183,623 | 17.77 |
| INDUS INUNDATION CANALS. | | | | | | | | |
| 1. Wrong assessment ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 2. Escape irrigation ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 3. Under Tenancy Rules ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 4. Short supply ... | ... | 10,606 | ... | ... | ... | 1,564 | ... | ... |
| 5. Hail ... | ... | ... | ... | ... | ... | 1,332 | ... | ... |
| 6. Frost ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 7. High wind ... | ... | 1,190 | ... | ... | ... | 1,872 | ... | ... |
| 8. Flooding { (1) by rain (2) from canal (3) hill torrent (4) from river ... | ... | 217 431 1,436 1,571 | ... | ... | ... | ... | ... | ... |
| 9. Rats ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 10. Locusts ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight ... | ... | 53 | ... | ... | ... | 701 | ... | ... |
| 12. Bad germination or cultivation ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 13. Bad soil ... | ... | 22,103 | ... | ... | ... | 11,253 | ... | ... |
| 14. High land ... | ... | 1,624 | ... | ... | ... | ... | ... | ... |
| 15. Scanty water ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 16. Scanty rain ... | ... | ... | ... | ... | ... | 93 | ... | ... |
| 17. Miscellaneous ... | ... | ... | ... | ... | ... | 652 | ... | ... |
| Total ... | 140,470 | 39,471 | 179,941 | 21.03 | 67,910 | 17,367 | 85,217 | 20.80 |

**STATEMENT SHOWING AREAS ON WHICH OCCUPIERS' RATES WERE REMITTED—
DURING THE YEAR 1916-17—CONTINUED.**

| CAUSE OF REMISSION. | Kharif, 1916. | | | | Rabi, 1916-17. | | | |
|--|----------------|----------------|-----------------------|----------------------|----------------|----------------|-----------------------|----------------------|
| | Area assessed. | Area remitted. | Total area irrigated. | Percentage remitted. | Area assessed. | Area remitted. | Total area irrigated. | Percentage remitted. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Acres. | Acres. | Acres. | | Acres. | Acres. | Acres. | |
| CHENAB INUNDATION CANALS. | | | | | | | | |
| 1. Wrong assessment ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 2. Escape irrigation ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 3. Under Tenancy Rules ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 4. Short supply ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 5. Hail ... | ... | 6,601 | ... | ... | ... | 1,874 | ... | ... |
| 6. Frost ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 7. High wind ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 8. Flooding { (1) by rain ... | ... | 2,872 | ... | ... | ... | ... | ... | ... |
| (2) from canal | ... | ... | ... | ... | ... | ... | ... | ... |
| (3) from river | ... | ... | ... | ... | ... | ... | ... | ... |
| 9. Rats ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 10. Locusts ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 12. Bad germination or cultivation | ... | 7 | ... | ... | ... | ... | ... | ... |
| 13. Bad soil ... | ... | 17 | ... | ... | ... | ... | ... | ... |
| 14. High land ... | ... | 6,415 | ... | ... | ... | 5,637 | ... | ... |
| 15. Miscellaneous ... | ... | 62 | ... | ... | ... | 830 | ... | ... |
| Total ... | 76,553 | 17,004 | 93,557 | 18.18 | 101,171 | 7,317 | 111,518 | 6.58 |
| LOWER SUTLEJ INUNDATION CANALS. | | | | | | | | |
| 1. Wrong assessment ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 2. Escape irrigation ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 3. Under Tenancy Rules ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 4. Short supply ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 5. Hail ... | ... | 92 | ... | ... | ... | 8 | ... | ... |
| 6. Frost ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 7. High wind ... | ... | ... | ... | ... | ... | 4,770 | ... | ... |
| 8. Flooding { (a) by heavy rain | ... | 6,547 | ... | ... | ... | ... | ... | ... |
| (b) from canal | ... | 42 | ... | ... | ... | ... | ... | ... |
| 9. Rats ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 10. Locusts ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 12. Bad germination or cultivation | ... | 608 | ... | ... | ... | 169 | ... | ... |
| 13. Bad soil ... | ... | 250 | ... | ... | ... | ... | ... | ... |
| 14. High land ... | ... | 12,602 | ... | ... | ... | 4,303 | ... | ... |
| 15. Miscellaneous ... | ... | 1,454 | ... | ... | ... | 12,134 | ... | ... |
| Total ... | 127,102 | 21,881 | 149,078 | 14.68 | 193,421 | 21,300 | 214,811 | 9.05 |
| MUZAFFARGARH INUNDATION CANALS. | | | | | | | | |
| 1. Wrong assessment ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 2. Escape irrigation ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 3. Under Tenancy Rules ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 4. Short supply ... | ... | 8,440 | ... | ... | ... | 1,892 | ... | ... |
| 5. Hail ... | ... | ... | ... | ... | ... | 14 | ... | ... |
| 6. Frost ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 7. High wind ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 8. Flooding { (a) by heavy rain | ... | 2,490 | ... | ... | ... | ... | ... | ... |
| (b) from canal | ... | ... | ... | ... | ... | ... | ... | ... |
| 9. Rats ... | ... | ... | ... | ... | ... | 13 | ... | ... |
| 10. Locusts ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 12. Bad germination or cultivation | ... | 615 | ... | ... | ... | 65 | ... | ... |
| 13. Bad soil ... | ... | 4,175 | ... | ... | ... | 688 | ... | ... |
| 14. High land ... | ... | ... | ... | ... | ... | 9,889 | ... | ... |
| 15. Miscellaneous ... | ... | 8,040 | ... | ... | ... | 1,609 | ... | ... |
| Total ... | 155,023 | 14,656 | 169,650 | 8.6 | 215,049 | 13,720 | 228,769 | 6.0 |

**STATEMENT SHOWING AREAS ON WHICH OCCUPIERS' RATES WERE REMITTED
DURING THE YEAR 1916-17—CONCLUDED.**

| CAUSE OF REMISSION. | KHARIF, 1916. | | | | RABI, 1916-17. | | | |
|---|----------------|----------------|-----------------------|----------------------|----------------|----------------|-----------------------|----------------------|
| | Area assessed. | Area remitted. | Total area irrigated. | Percentage remitted. | Area assessed. | Area remitted. | Total area irrigated. | Percentage remitted. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| SHAHPUR IMPERIAL CANALS. | Acres. | Acres. | Acres. | | Acres. | Acres. | Acres. | |
| 1. Wrong assessment ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 2. Escape irrigation ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 3. Under Tenancy Rules ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 4. Short supply ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 5. Hail ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 6. Frost ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 7. High wind ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 8. Flooding { (a) by heavy rain (b) from canal | ... | ... | ... | ... | ... | ... | ... | ... |
| 9. Rats ... | ... | 44 | ... | ... | ... | ... | ... | ... |
| 10. Locusts ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight ... | ... | 163 | ... | ... | ... | ... | ... | ... |
| 12. Bad germination or cultivation | ... | 163 | ... | ... | ... | ... | ... | ... |
| 13. Bad soil ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 14. High land ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 15. Miscellaneous ... | ... | ... | ... | ... | ... | 1,412 | ... | ... |
| Total ... | 19,307 | 370 | 19,683 | 1.91 | 25,074 | 1,412 | 27,086 | 5.21 |
| GHAGGAR CANALS. | | | | | | | | |
| 1. Wrong assessment ... | ... | ... | ... | ... | ... | 3 | ... | ... |
| 2. Escape irrigation ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 3. Under Tenancy Rules ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 4. Short supply ... | ... | 813 | ... | ... | ... | 781 | ... | ... |
| 5. Hail ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 6. Frost ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 7. High wind ... | ... | ... | ... | ... | ... | 1,788 | ... | ... |
| 8. Flooding { (a) by heavy rain (b) from canal | ... | ... | ... | ... | ... | ... | ... | ... |
| 9. Rats ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 10. Locusts ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 12. Bad germination or cultivation | ... | ... | ... | ... | ... | ... | ... | ... |
| 13. Bad soil ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 14. High land ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 15. Miscellaneous ... | ... | 20 | ... | ... | ... | ... | ... | ... |
| Total ... | 12,068 | (A) 833 | 13,491 | 6.17 | 24,301 | (B) 2,572 | 23,970 | 9.57 |
| SHAHPUR PROVINCIAL CANALS. | | | | | | | | |
| 1. Wrong assessment ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 2. Escape irrigation ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 3. Under Tenancy Rules ... | ... | 110 | ... | ... | ... | 1,133 | ... | ... |
| 4. Short supply ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 5. Hail ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 6. Frost ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 7. High wind ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 8. Flooding { (a) by heavy rain (b) from canal | ... | ... | ... | ... | ... | ... | ... | ... |
| 9. Rats ... | ... | 20 | ... | ... | ... | ... | ... | ... |
| 10. Locusts ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 11. Other insects and blight ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 12. Bad germination or cultivation | ... | ... | ... | ... | ... | 390 | ... | ... |
| 13. Bad soil ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 14. High land ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 15. Miscellaneous ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Total ... | 9,719 | 130 | 9,856 | 2.0 | 23,026 | 1,523 | 24,549 | 6.3 |
| | | | | | (A) | (B) | | |
| British ... | ... | ... | ... | ... | 813 | 784 | | |
| Bikaner ... | ... | ... | ... | ... | 20 | 1,788 | | |
| Total ... | | | | | 833 | 2,572 | | |

II.E.
STATEMENT SHOWING INCIDENCE OF WORKING EXPENSES AND ASSESSED WATER REVENUE ON THE CANALS IN THE PUNJAB DURING 1916-17.

| NAMES OF CANALS. | WATER-RATE ASSESSED IN 1916-17. | | | | | | | | | | WORKING EXPENSES. | | | | | OCCUPIERS' RATES. | | | TOTAL WATER RATE DIRECT AND INDIRECT. | | | | | | | | | | |
|--|--|-----------|------------|-----|-----|---------------|-----------|-----|-----------|-------------|--|---------------|--|-----|-----|----------------------------|-----|-----|---------------------------------------|-----|-----|--------------------|-----|-----|--------------------|-----|-----|-----|-----|
| | Average discharge of the year at canal head in cusecs. | 2 | Occupiers. | | 4 | Total direct. | | 6 | Indirect. | 7 | Gross assessed revenue from all sources. | | Working expenses, direct and indirect. | | 10 | Per cent on gross revenue. | | 12 | Per cusec of discharge. | | 14 | Per acre assessed. | | 15 | Per acre assessed. | | 17 | | |
| | | | Rs. | ... | | Rs. | ... | | | | Rs. | ... | Rs. | ... | | Rs. | ... | | Rs. | ... | | Rs. | ... | | Rs. | ... | | Rs. | ... |
| MAJOR IRRIGATION WORKS. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Western Jumna Canal (including Sirsa Branch, British and Patiala). | 3,052 | 30,19,883 | ... | ... | ... | 30,19,883 | 2,08,310 | ... | ... | 32,28,193 | Rs. 33,97,117 | Rs. 41,50,678 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Sirhind Canal (British) | 3,380 | 35,31,358 | ... | ... | ... | 35,31,358 | 1,42,791 | ... | ... | 36,77,149 | 30,14,723 | 13,87,160 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| " " (Patiala, Nabha and Jind States) | 2,182 | 23,17,590 | ... | ... | ... | 23,17,590 | ... | ... | ... | 23,17,590 | 21,23,586 | 2,43,063 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Upper Bari Doab Canal | 3,540 | 41,24,059 | ... | ... | ... | 41,24,059 | 6,48,873 | ... | ... | 47,72,931 | 61,39,331 | 14,10,123 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Lower Bari Doab Canal | 2,460 | 10,77,419 | ... | ... | ... | 10,77,419 | 3,02,931 | ... | ... | 12,80,343 | 13,17,319 | 5,26,358 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Upper Chenab Canal | 2,529 | 21,97,410 | ... | ... | ... | 21,97,410 | 5,84,987 | ... | ... | 23,72,397 | 22,96,299 | 8,98,261 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Lower Chenab Canal | 7,950 | 83,93,140 | ... | ... | ... | 83,93,140 | 7,41,853 | ... | ... | 1,57,93,793 | 1,59,93,178 | 27,19,783 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Upper Jhelum Canal | 491 | 3,61,100 | ... | ... | ... | 3,61,100 | ... | ... | ... | 3,61,100 | 3,69,943 | 5,40,795 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Lower Jhelum Canal | 2,662 | 27,31,670 | ... | ... | ... | 27,31,670 | 17,64,053 | ... | ... | 44,95,363 | 43,60,617 | 9,83,923 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Upper Sutlej Canals | 2,808 | 4,04,140 | ... | ... | ... | 4,04,140 | 2,27,480 | ... | ... | 6,27,029 | 6,42,595 | 4,11,398 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Sirhind Canals | 1,395 | 4,96,853 | ... | ... | ... | 4,96,853 | 1,31,311 | ... | ... | 6,33,197 | 6,32,812 | 1,59,013 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Indus Irrigation Canals | 3,314 | 3,27,705 | ... | ... | ... | 3,27,705 | 3,73,500 | ... | ... | 6,01,205 | 5,93,431 | 3,98,601 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| MINOR IRRIGATION WORKS. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sholapur (Imperial) Irrigation Canals | 570 | 1,09,480 | ... | ... | ... | 1,09,480 | 42,082 | ... | ... | 1,51,568 | 1,61,690 | 47,175 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Chaggar Irrigation Canals (British) | 725 | 22,873 | ... | ... | ... | 22,873 | ... | ... | ... | 22,873 | 23,278 | 30,480 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| " " (Bikaner) | 231 | 427,016 | ... | ... | ... | 427,016 | ... | ... | ... | 27,610 | 27,933 | 16,130 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Lower Sutlej Irrigation Canals | 3,465 | 3,51,273 | ... | ... | ... | 3,51,273 | 3,03,700 | ... | ... | 6,56,972 | 6,91,333 | 2,39,727 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Chenab Irrigation Canals | 2,585 | 2,11,421 | ... | ... | ... | 2,11,421 | 2,45,795 | ... | ... | 4,61,216 | 4,61,738 | 1,55,791 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Muzaffargarh Irrigation Canals | 5,634 | 3,22,957 | ... | ... | ... | 3,22,957 | 4,10,610 | ... | ... | 7,39,576 | 7,54,219 | 3,61,425 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Sholapur (Provincial) Irrigation Canals | 438 | 49,599 | ... | ... | ... | 49,599 | 20,938 | ... | ... | 70,417 | 71,047 | 47,660 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Ravi Irrigation Canals | ... | ... | ... | ... | ... | ... | 3,222 | ... | ... | 3,223 | 3,223 | 2,404 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |

* Includes Rs. 41,237 actually spent by the Patiala State.
 † Includes Rs. 5,035 actually spent by the Bikaner State.
 ‡ Figures reported by the Bikaner State.

III-E.

**STATEMENT OF QUANTITY AND VALUE OF CROPS IRRIGATED IN THE
PUNJAB DURING THE YEAR 1916-17.**

STATEMENT OF QUANTITY AND VALUE OF CROPS

| NAME OF CROPS. | | | WESTERN JERMA CANAL. | | SARAYF CANAL (BARTON). | | SARAYF CANAL (NATIVE STATES BRANCHES). | | UPPER BART DOWS CANAL. | |
|-------------------------------|-------------|-------------------------|--------------------------------|------------------|--------------------------------|------------------|--|------------------|--------------------------------|------------------|
| English. | Vernacular. | Scientific. | Area assessed to water-meters. | Estimated value. | Area assessed to water-meters. | Estimated value. | Area assessed to water-meters. | Estimated value. | Area assessed to water-meters. | Estimated value. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Cereals— | | | Acres. | Rs. | Acres. | Rs. | Acres. | Rs. | Acres. | Rs. |
| Wheat | Gahun | Triticum sativum | 239,270 | 1,10,13,600 | 27,682 | 1,20,88,844 | 169,661 | 71,00,739 | 249,830 | 1,16,61,833 |
| Barley | Joo | Hordeum vulgare | 15,709 | 5,67,491 | 60,087 | 21,92,430 | 62,577 | 10,30,907 | 5,378 | 1,65,478 |
| Rice | Shona | Oryza sativa | 20,833 | 7,61,692 | 11 | 419 | 6,847 | 1,81,197 | 87,584 | 3,67,669 |
| Millet | Makki | Zea mays | 2,231 | 75,861 | 89,233 | 23,20,772 | 41,800 | 15,02,404 | 74,509 | 21,62,501 |
| Oats | Jawi | Avena sativa | 54,270 | 16,22,800 | 17 | 630 | 21,209 | 8,49,329 | 3,009 | 69,150 |
| Mixed Grain | Berra | ... | 2,709 | 60,009 | 892 | 20,769 | 2,368 | 51,978 | 129,484 | 46,40,340 |
| Miscellaneous | ... | ... | ... | ... | ... | ... | ... | ... | 7,710 | 1,70,240 |
| Milllets and pulses— | | | ... | ... | ... | ... | ... | ... | ... | ... |
| Great Millet | Jawar | Eleusine indica | 109,623 | 6,30,168 | 16,098 | 1,77,058 | 911 | 10,331 | ... | ... |
| Spiked Millet | Bajra | Pennisetum glaucum | 16,391 | 2,02,091 | 6,034 | 1,77,478 | 2,021 | 81,499 | 3,710 | 63,070 |
| Italian Millet | Kanuni | Setaria italica | ... | ... | ... | ... | ... | 2,850 | 612 | 19,300 |
| ... | Mandua | Eleusine coracana | 120 | 2,620 | ... | ... | 16 | 231 | ... | ... |
| ... | Savank | Panicum imbricatum | ... | ... | ... | ... | 13 | 191 | ... | ... |
| Gram | Chana | Cicer arietinum | 66,285 | 20,53,695 | 162,657 | 10,61,676 | 35,657 | 9,58,074 | 73,037 | 17,07,708 |
| Lentil | Masur | Ervum lens | 6,917 | 1,30,240 | 183 | 4,110 | 177 | 6,310 | 5,013 | 64,600 |
| Peanut | Molai | Pisum sativum | 1,432 | 23,000 | ... | ... | 41 | 1,230 | ... | ... |
| ... | Mash | Phaseolus radiatus | 47 | 900 | 22 | 600 | 72 | 2,169 | 431 | 12,099 |
| ... | Mung | Phaseolus mungo | 513 | 11,000 | 161 | 3,020 | 173 | 3,020 | 173 | 4,325 |
| ... | Moth | Phaseolus acutifolia | 499 | 7,720 | 7,531 | 1,13,205 | 240 | 4,035 | 15,101 | 7,79,025 |
| Mixed Grain | Guar | Cyamopsis tetragonoloba | 7,609 | 1,19,035 | 20,020 | 6,77,780 | 1,145 | 34,500 | 10,097 | 2,61,425 |
| ... | Berra | ... | ... | ... | ... | ... | ... | ... | 16 | 670 |
| Miscellaneous | Maddal | Panicum millacum | ... | ... | 22 | 770 | 22 | 770 | 210 | 1,450 |
| ... | ... | ... | 6,658 | 1,34,320 | ... | ... | ... | ... | 1,775 | 54,525 |
| Dries and Spices— | | | ... | ... | ... | ... | ... | ... | ... | ... |
| Tobacco | Tamaku | Nicotiana glauca | 523 | 31,350 | 20 | 2,320 | 8 | 640 | 1,103 | 63,670 |
| Poppy | Post | Papaver somniferum | ... | ... | ... | ... | ... | ... | ... | ... |
| Aniseed and Dill | Ajwain | Foeniculum ajacum | 1 | ... | ... | ... | ... | ... | ... | ... |
| Peppercorn | Molai | Pepper officinale | 11,671 | 2,49,275 | ... | ... | ... | ... | ... | ... |
| Coriander | Dhaini | Coriandrum sativum | 697 | 20,175 | 35 | 1,400 | 19 | 740 | 23 | 1,163 |
| Cumin | Zira | Communis officinale | ... | ... | ... | ... | ... | ... | ... | ... |
| Turnip | Molai | Brassica napus | ... | ... | ... | ... | ... | ... | ... | ... |
| Mustard | Sarai | Sinapis alba | ... | ... | ... | ... | ... | ... | ... | ... |
| Miscellaneous | Kandi | ... | ... | ... | ... | ... | 21 | 420 | 4 | 60 |
| Fibres— | | | ... | ... | ... | ... | ... | ... | ... | ... |
| Cotton | Uoi | Gossypium herbaceum | 62,507 | 61,72,100 | 10,509 | 6,02,094 | 29,813 | 18,40,111 | 147,021 | 69,21,591 |
| Alseella Hemp | Fau | Hibiscus cannifolius | 211 | 5,850 | 3,107 | 1,02,210 | 1,145 | 31,000 | 2,775 | 83,353 |
| False Hemp | Sanni | Crotalaria juncea | 1,263 | 40,500 | ... | ... | ... | ... | 602 | 16,000 |
| Miscellaneous | Munfana | Eriogonum minus | ... | ... | ... | ... | ... | ... | ... | ... |
| Dyes— | | | ... | ... | ... | ... | ... | ... | ... | ... |
| Indigo | Nili | Indigofera tinctoria | 11,551 | 2,59,850 | ... | ... | 545 | 19,075 | ... | ... |
| Henna | Alehndi | Lawsonia alba | ... | ... | ... | ... | ... | ... | ... | ... |
| Safflower | Kasumbi | Carthamus tinctorius | 290 | 7,800 | ... | ... | ... | ... | ... | ... |
| Miscellaneous | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Oil-seeds— | | | ... | ... | ... | ... | ... | ... | ... | ... |
| Groundnut or Sesame | Til | Persea indica | 125 | 3,575 | 209 | 6,200 | 18 | 400 | 2,211 | 65,270 |
| Pap | Ervon | Brassica campestris | 15,273 | 3,00,610 | 7,011 | 1,76,276 | 7,297 | 1,82,128 | 8,523 | 2,47,437 |
| Do. | Tuna | Do (var. olea) | 47 | 1,075 | 97 | 2,425 | 3 | 75 | 2,473 | 7,01,017 |
| Linseed Flax | Taramira | Erucasativa | 2 | 50 | 282 | 8,050 | 658 | 16,103 | 475 | 13,253 |
| Miscellaneous | Alsi | Linum catharticum | 3 | 75 | 8 | 125 | ... | ... | ... | ... |
| Fruits and Vegetables— | | | ... | ... | ... | ... | ... | ... | ... | ... |
| Orchards | Mirch | Carpelem annuum | 725 | 29,000 | 294 | 29,400 | 533 | 23,300 | 2,313 | 1,03,310 |
| Chillies | Kharbura | Capsicum melo | 1,149 | 27,470 | 5,110 | 2,65,700 | 1,425 | 71,800 | 1,332 | 73,297 |
| Carrots | Gajar | Daucus carota | 355 | 15,000 | 177 | 6,520 | ... | ... | ... | ... |
| Cress | Halum | Lepidium sativum | 201 | 6,100 | 64 | 1,320 | 59 | 1,790 | ... | ... |
| Onions | Piaz | Allium cepa | 409 | 22,800 | ... | ... | 8 | 400 | 44 | 2,630 |
| Turnips | Saigram | Brassica rapa | ... | ... | 454 | 20,430 | ... | ... | 8,401 | 3,29,440 |
| Water-nuts | Singhara | Trapa bicornis | 132 | 6,280 | ... | ... | 3,342 | 2,31,200 | ... | ... |
| Gardens | ... | ... | 6,620 | 6,65,000 | 667 | 60,700 | ... | ... | 6,791 | 6,69,100 |
| Potatoes | Alu | Solanum tuberosum | 83 | 6,300 | ... | ... | ... | ... | 649 | 54,700 |
| Vegetables | Tarkari | ... | 2,221 | 1,55,470 | 2,177 | 1,52,300 | 410 | 23,700 | 3,913 | 2,73,810 |
| Miscellaneous | Lehsan | ... | 31 | 620 | 417 | 18,410 | ... | ... | 1,491 | 44,490 |
| Fodder— | | | ... | ... | ... | ... | ... | ... | ... | ... |
| Lacorno Grass | Lusan Ghas | Medicago sativa | 1,613 | 64,520 | 3 | 75 | ... | ... | ... | ... |
| Grass | Parji | Do. Var | 451 | 9,775 | 24,993 | 43,760 | 24,330 | 6,06,020 | 63,173 | 27,24,620 |
| Millets, etc. | Ghas | ... | 69 | 1,075 | 237 | 7,110 | 418 | 18,640 | 723 | 11,745 |
| Sugarcane | Charhi | ... | 13,106 | 3,29,180 | 180,010 | 54,18,440 | 113,403 | 34,02,000 | 183,037 | 38,91,710 |
| Miscellaneous | Malua | Saccharum officinarum | 92,025 | 62,87,400 | 1,704 | 2,62,410 | 3,078 | 6,12,304 | 10 | 290 |
| ... | Yama | ... | ... | ... | ... | ... | ... | ... | 42,165 | 81,70,770 |
| ... | Shafai | ... | 4 | 60 | ... | ... | ... | ... | ... | ... |
| ... | Methra | ... | ... | ... | ... | ... | 1,513 | 21,360 | 134 | 2,090 |
| Total | | | 801,095 | 3,61,72,915 | 680,174 | 2,93,43,107 | 624,160 | 1,95,40,441 | 1,172,221 | 4,32,73,047 |
| Fallows | ... | ... | 2,737 | ... | 12,743 | ... | 7,914 | ... | ... | ... |
| Single watering | ... | ... | 7,149 | ... | ... | ... | ... | ... | 2,195 | ... |
| Plantations | ... | ... | 11 | ... | ... | ... | ... | ... | 12,163 | ... |
| Miscellaneous | ... | ... | 969 | ... | 2,622 | ... | ... | ... | ... | ... |
| Waste of water | ... | ... | 7,860 | ... | ... | ... | ... | ... | ... | ... |
| Salvage | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| GRAND TOTAL | | | 821,723 | 3,61,72,915 | 691,639 | 2,93,43,107 | 632,080 | 1,95,40,441 | 1,172,221 | 4,32,73,047 |

*This includes 2,100 acres

E.

IRRIGATED IN THE PUNJAB DURING THE YEAR 1916-17.

| LOWER BHAIR DOAB CANAL. | | UPPER CHENAB CANAL. | | LOWER CHENAB CANAL. | | UPPER JHELUM CANAL. | | LOWER JHELUM CANAL. | | UPPER SUTLEJ INUNDATION CANALS (INCLUDING LOWER SOKRA AND PAR). | |
|-------------------------------|------------------|-------------------------------|------------------|-------------------------------|------------------|-------------------------------|------------------|-------------------------------|------------------|---|------------------|
| Area assessed to water-rials. | Estimated value. | Area assessed to water-rials. | Estimated value. | Area assessed to water-rials. | Estimated value. | Area assessed to water-rials. | Estimated value. | Area assessed to water-rials. | Estimated value. | Area assessed to water-rials. | Estimated value. |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| Acres. | Rs. | Acres. | Rs. | Acres. | Rs. | Acres. | Rs. | Acres. | Rs. | Acres. | Rs. |
| 101,092 | 42,45,441 | 01,190 | 25,04,871 | 001,419 | 1,07,06,722 | 60,770 | 22,71,781 | 99,723 | 1,35,68,802 | 54,081 | 10,07,708 |
| 2,010 | 76,410 | 0,051 | 84,110 | 16,141 | 3,49,247 | 2,290 | 61,189 | 0,100 | 2,09,430 | 1,011 | 35,412 |
| 0,871 | 3,30,028 | 204,503 | 1,02,40,156 | 12,384 | 20,44,032 | 5,110 | 2,15,712 | 0,305 | 3,02,010 | 20,618 | 12,82,784 |
| 10,180 | 2,35,003 | 7,001 | 1,40,020 | 107,062 | 21,02,498 | 2,679 | 28,305 | 12,480 | 4,02,046 | 7,010 | 81,460 |
| 522 | 21,090 | 17 | 878 | 878 | 21,120 | 12 | 451 | 8,838 | 5,03,440 | 895 | 16,850 |
| 1,740 | 37,200 | 331 | 9,800 | 5,917 | 1,71,670 | 207 | 7,979 | .. | .. | 54,470 | 16,34,100 |
| .. | .. | 8 | 100 | .. | .. | .. | .. | .. | .. | .. | .. |
| 30,870 | 4,01,050 | 10,010 | 3,42,288 | 22,470 | 5,18,889 | 9,075 | 1,41,110 | 79,814 | 13,78,832 | 60,612 | 12,18,240 |
| 4,500 | 1,80,000 | 723 | 18,722 | 29,090 | 5,03,221 | 12,070 | 2,02,190 | 71,859 | 7,84,775 | 7,857 | 1,89,608 |
| 511 | 8,679 | 52 | 1,200 | 170 | 4,299 | 16 | 177 | 24 | 700 | 1,491 | 37,025 |
| .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 0 | 189 | 23 | 290 | 299 | 5,760 | 31 | 465 | 601 | 19,365 | .. | 6,000 |
| 2,070 | 79,102 | 7,657 | 1,07,097 | 01,829 | 11,12,074 | 943 | 1,189 | 2,093 | 41,000 | 330 | 0,00,347 |
| 43 | 1,200 | 260 | 7,600 | 2,732 | 82,600 | 216 | 10,771 | 11,117 | 3,00,160 | 39,317 | 5,800 |
| 1,001 | 82,029 | .. | .. | 5,081 | 1,01,689 | .. | 6,450 | 3,354 | 00,725 | 178 | 740 |
| 501 | 16,000 | .. | .. | 41 | 630 | .. | .. | 548 | 10,940 | 37 | .. |
| .. | .. | .. | .. | 1,224 | 39,700 | .. | .. | 4,200 | .. | .. | .. |
| 2,880 | 58,723 | 11 | 278 | 201 | 5,021 | 12 | 210 | 22 | 120 | 42 | 1,200 |
| 1,601 | 39,726 | .. | .. | 5,871 | 1,14,827 | 81 | 2,100 | 1,031 | 25,775 | 232 | 6,050 |
| 619 | 13,725 | 491 | 0,000 | 4,767 | 1,08,025 | .. | .. | 2,292 | 58,900 | 4,206 | 85,820 |
| 20 | 330 | 50 | 1,180 | 1,328 | 17,225 | 59 | 2,725 | 5,126 | 1,02,620 | .. | 878 |
| .. | .. | .. | .. | 4,157 | 80,140 | .. | .. | .. | .. | 218 | 3,105 |
| 106 | 8,400 | 303 | 31,190 | 2,810 | 2,00,500 | 75 | 0,000 | 1,302 | 1,04,100 | 7 | 420 |
| .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 127 | 3,178 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 12 | 480 | .. | .. | 651 | 22,040 | .. | .. | .. | 22,000 | 380 | 14,760 |
| 122 | 4,853 | .. | .. | .. | .. | 30 | 1,140 | .. | .. | 325 | 8,000 |
| .. | .. | .. | .. | 84 | 1,300 | .. | .. | .. | .. | .. | .. |
| .. | .. | .. | .. | 14 | 210 | .. | .. | .. | .. | .. | .. |
| 1 | 16 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 38,082 | 18,23,872 | 20,893 | 6,80,293 | 1,79,447 | 61,62,010 | 2,807 | 67,683 | 71,611 | 2,42,712 | 12,654 | 0,02,632 |
| 181 | 5,430 | 554 | 10,770 | 1,036 | 40,000 | 80 | 2,670 | 493 | 14,780 | 451 | 15,620 |
| .. | .. | 67 | 2,610 | 2,189 | 65,700 | 49 | 1,470 | 193 | 12,090 | 8 | 45 |
| .. | .. | .. | .. | 37 | 990 | .. | .. | .. | .. | .. | .. |
| 21 | 960 | .. | .. | 163 | 4,120 | .. | .. | .. | .. | .. | .. |
| .. | .. | 10 | 360 | 32 | 800 | .. | .. | 1 | 160 | .. | 878 |
| .. | .. | .. | .. | 13 | 300 | 41 | 1,230 | 210 | 0,870 | 85 | .. |
| .. | .. | .. | .. | .. | .. | .. | .. | 131 | 4,020 | .. | .. |
| 7,060 | 1,83,804 | 070 | 14,700 | 2,413 | 61,733 | 1,000 | 40,320 | 7,421 | 38,788 | 6,200 | 1,20,880 |
| 7,100 | 2,00,000 | 3,720 | 87,138 | 66,110 | 12,18,788 | 629 | 15,000 | 5,300 | 1,50,069 | 104 | 2,468 |
| 10,002 | 3,04,418 | 7,272 | 1,30,104 | 2,10,071 | 64,18,369 | 1,077 | 1,17,771 | 85,012 | 22,60,830 | 935 | 6,480 |
| 1,134 | 27,216 | 601 | 1,102 | 01,889 | 81,889 | 113 | 2,712 | 1,60,324 | 1,60,324 | 275 | 7,000 |
| 5 | 120 | 64 | 1,405 | 1,709 | 83,031 | 16 | 640 | 333 | 0,324 | 1 | 24 |
| .. | .. | .. | .. | 80 | 2,080 | .. | .. | .. | .. | .. | .. |
| .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 11 | 833 | 24 | 1,020 | 680 | 67,129 | .. | .. | .. | 7,128 | 245 | 12,250 |
| 0,093 | 3,04,100 | 1,612 | 62,100 | 66,103 | 17,68,160 | 1,638 | 10,160 | 10,802 | 0,43,200 | 14 | 120 |
| 80 | 2,400 | 1 | 40 | 292 | 11,080 | 8 | 210 | 108 | 4,620 | 10 | 670 |
| 40 | 1,470 | .. | .. | .. | .. | 7 | 210 | 43 | 1,280 | .. | .. |
| 10,427 | 4,17,090 | 5,510 | 2,30,810 | 62,078 | 21,07,130 | 2,108 | 67,090 | 10 | 870 | 2 | 100 |
| 16 | 1,800 | 24 | 2,100 | 2,720 | 2,72,000 | 11 | 1,100 | 84,080 | 14,99,360 | 12,073 | 4,32,820 |
| 1,183 | 82,810 | 007 | 12,030 | 67 | 3,700 | .. | .. | .. | .. | 280 | 23,500 |
| .. | .. | 10 | 670 | 494 | 14,620 | 102 | 7,140 | 1,780 | 1,73,600 | 0 | 600 |
| .. | .. | .. | .. | .. | .. | .. | .. | 1,083 | 1,17,610 | 04 | 5,749 |
| .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 170 | 8,600 | 47 | 2,150 | 10,474 | 9,73,700 | 5 | 250 | 2,622 | 1,41,000 | 7 | 350 |
| 1,807 | 80,010 | 5,204 | 1,50,120 | 88,630 | 20,80,090 | 300 | 10,800 | 6,454 | 2,53,620 | 565 | 16,850 |
| 081 | 10,000 | 824 | 21,720 | 2,017 | 87,610 | 6,850 | 1,08,500 | 4,471 | 1,34,130 | 16,582 | 1,35,020 |
| 2,700 | 81,000 | 11,339 | 3,16,770 | 1,96,450 | 35,82,820 | .. | .. | 3,004 | 90,120 | .. | .. |
| 3 | 75 | 3,222 | 66,725 | 4,000 | 80,000 | 183 | 3,325 | 1,223 | 31,825 | .. | .. |
| 1,327 | 1,05,670 | 7,635 | 7,01,005 | 60,147 | 62,82,650 | 291 | 20,301 | 8,078 | 8,67,300 | 1,009 | 2,20,125 |
| .. | .. | 85 | .. | 902 | 67,100 | 30 | 1,500 | 4,410 | 2,20,000 | .. | .. |
| 415 | 10,375 | .. | 2,127 | 0,492 | 1,82,173 | 8 | 75 | 677 | 24,425 | 174 | 1,350 |
| 40 | 090 | .. | .. | 7,232 | 21,610 | 6 | 120 | 6,160 | 1,33,000 | .. | .. |
| 298,382 | 83,80,314 | 4,05,831 | 1,04,78,492 | 2,315,001 | 8,50,10,245 | 113,508 | 30,62,234 | 791,221 | 2,53,26,798 | 302,01 | 69,53,212 |
| .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 8,448 | .. | 0,810 | .. | 6,204 | .. | .. | .. | .. | .. | .. | .. |
| 40 | .. | 0 | .. | 107 | .. | 080 | .. | 4,803 | .. | 76 | .. |
| .. | .. | .. | .. | 14 | .. | .. | .. | 2,288 | .. | .. | .. |
| .. | .. | .. | .. | .. | .. | .. | .. | 48 | .. | .. | .. |
| 273,841 | 83,98,816 | 417,383 | 1,81,78,492 | 2,820,474 | 8,50,16,242 | 114,168 | 86,62,234 | 799,300 | 2,62,26,700 | 802,047 | 80,62,212 |

omitted under Tenancy Rules.

STATEMENT OF QUANTITY AND VALUE OF CROPS IRRIGATED

| NAMES OF CROPS. | | | SIDHAI CANAL. | | INDRA INDIAN CANALS. | | SHARDA (INDRA) INDIAN CANALS. | | GHAGGAR CANALS (DATTI). | |
|-------------------------------|-------------|---------------------------|-------------------------------|------------------|-------------------------------|------------------|-------------------------------|------------------|-------------------------------|------------------|
| English. | Vernacular. | Scientific. | Area assessed to water-rails. | Estimated value. | Area assessed to water-rails. | Estimated value. | Area assessed to water-rails. | Estimated value. | Area assessed to water-rails. | Estimated value. |
| 1 | 2 | 3 | 21 | 22 | 26 | 27 | 28 | 29 | 30 | 31 |
| Cereals— | | | | | | | | | | |
| Wheat | Gobun | Triticum sativum | 103,140 | 49,51,008 | 43,701 | 18,02,085 | 18,620 | 8,18,717 | 4,370 | 2,18,050 |
| Barley | Ja* | Hordium vulgare | 3,130 | 75,131 | 1,253 | 30,789 | 171 | 4,176 | — | — |
| Rice | Jhona | Oryza sativa | 7,885 | 2,04,400 | 50,171 | 13,44,104 | 633 | 22,031 | 5,069 | 3,29,384 |
| Maise | Makhi | Zea mays | 2,607 | 32,091 | 18 | 216 | 107 | 2,461 | — | — |
| Oats | Jawi | Avena sativa | — | — | — | — | 203 | 3,045 | — | — |
| Mixed Grain | Norra | — | — | — | — | — | — | — | 7,633 | 1,80,823 |
| Miscellaneous | — | — | 1,304 | 36,050 | — | — | — | — | — | — |
| Milllets and Pulses— | | | | | | | | | | |
| Great Millet | Jawar | Sorghum vulgare | 33,301 | 3,40,611 | 29,983 | 6,55,077 | 6,620 | 1,22,760 | 359 | 1,649 |
| Spike Millet | Bajra | Panicum spicatum | 9,091 | 2,39,784 | 19,677 | 6,46,548 | 1,720 | 47,000 | — | — |
| Italian Millet | K. nani | Setaria italica | 123 | 2,460 | 84 | 2,520 | — | — | — | — |
| — | Mandwa | Pennisetum polystachyon | 253 | 10,450 | 239 | 6,230 | — | — | — | — |
| — | Sawant | Pennisetum polystachyon | — | — | 1,041 | 25,820 | 62 | 1,240 | — | — |
| Gram | Chana | Cicer arietinum | 14,823 | 2,90,640 | 8,422 | 1,68,440 | 3,408 | 92,016 | 2,990 | 1,07,730 |
| Lentil | Masur | Ervum lens | 323 | 6,880 | 68 | 2,010 | 216 | 3,210 | — | — |
| — | Rwan | — | 307 | 5,956 | — | — | — | — | — | — |
| Pasa | Matar | Pisum sativum | 704 | 16,890 | 4,304 | 1,00,200 | — | — | — | — |
| — | Mach | Phaseolus radiatus | 6,783 | 3,06,670 | — | — | — | — | — | — |
| — | Kong | Phaseolus mungo | 213 | 4,610 | 48 | 1,800 | — | — | — | — |
| — | Muth | Phaseolus acutifolia | 213 | 3,000 | 2,702 | 67,650 | 23 | 330 | — | — |
| Mixed Grain | Quav | Cynopodia procurrens | — | — | — | — | — | — | 754 | 18,820 |
| — | Norra | — | 3,784 | 85,810 | 63 | 946 | 213 | 3,180 | — | — |
| — | Chosna | — | — | — | — | — | — | — | — | — |
| Miscellaneous | Kaddal | — | 140 | 2,222 | — | — | — | — | 469 | 7,037 |
| Drugs and Spices— | | | | | | | | | | |
| Tobacco | Tamaku | Nicotiana tabacum | 383 | 10,120 | 2,105 | 3,74,400 | 37 | 1,850 | — | — |
| Poppy | Post | Papaver somniferum | — | — | — | — | — | — | — | — |
| Aniseed and Dill | Ajwain | Pimpinella ajwain | — | — | — | — | — | — | — | — |
| Fenugreek | Melhi | Trigonella foenum-graecum | — | — | — | — | — | — | — | — |
| Coriander | Dhania | Coriandrum sativum | 102 | 7,040 | 30 | 400 | — | — | 16 | 490 |
| Cumin | Zira | Communis odinense | — | — | 39 | 1,820 | — | — | — | — |
| Mustard | Haldi | Brassica sinensis | — | — | — | — | — | — | — | — |
| Aniseed | Ranfi | Pimpinella anisum | — | — | 10 | 200 | — | — | — | — |
| Miscellaneous | Kasni | — | 9 | 135 | — | — | — | — | — | — |
| Fibres— | | | | | | | | | | |
| Cotton | Rui | Gossypium herbaceum | 3,328 | 1,15,222 | 15,161 | 4,49,316 | 7,069 | 3,22,105 | — | — |
| Rupella Hemp | Sau | Urena cannabina | 95 | 3,920 | — | — | — | — | — | — |
| Pale Hemp | Sawal | Crotalaria lancea | — | — | — | — | 15 | 215 | — | — |
| Miscellaneous | Bhunjiana | Saccharum munja | — | — | — | — | — | — | — | — |
| Dyes— | | | | | | | | | | |
| Indigo | Nili | Indigofera tinctoria | 413 | 12,310 | 4,422 | 2,17,600 | — | — | — | — |
| Henna | Melindi | Lawsonia alba | — | — | 23 | 2,080 | — | — | — | — |
| Safflower | Kasumbha | Carthamus tinctorius | — | — | — | — | — | — | — | — |
| Miscellaneous | — | — | — | — | — | — | — | — | — | — |
| Oil-seeds— | | | | | | | | | | |
| Mustard or Sesame | Til | Sesamum indicum | 18,181 | 4,35,000 | 301 | 7,231 | 79 | 1,991 | — | — |
| Rare | Saron | Brassica campestris | 217 | 7,209 | 80 | 2,160 | 3 | 72 | 397 | 9,025 |
| Do. | Toria | Brassica campestris | 4,572 | 1,17,948 | — | — | 178 | 4,372 | — | — |
| Mustard Flax | Tavaria | Linum catharticum | 3,841 | 67,218 | 2,421 | 7,104 | 190 | 4,590 | — | — |
| Miscellaneous | Alei | Linum catharticum | — | — | 21 | — | — | — | 308 | 2,700 |
| Fruits and Vegetables— | | | | | | | | | | |
| Orchards | Mitch | Carya annua | 133 | 5,310 | 203 | 21,210 | — | — | — | — |
| Chillies | Kharbura | Cucumis melo | 31 | 225 | 19 | 950 | 219 | 6,617 | — | — |
| Melons | Bajar | Daucus carota | — | — | 16 | 520 | — | — | — | — |
| Carrots | Hidam | Lepidion sativum | — | — | — | — | — | — | — | — |
| Cress | Pas | Alum cava | — | — | 22 | 380 | — | — | — | — |
| Onions | Balsam | Brassica rapa | 10,424 | 3,29,920 | 1,593 | 74,990 | — | — | — | — |
| Turnips | Singhara | Lappa bicornis | — | — | — | — | 74 | 7,400 | 13 | 1,370 |
| Water-melon | — | — | — | — | — | — | — | — | — | — |
| Gardens | Alu | Solanum tuberosum | 127 | 4,475 | 229 | 23,600 | — | — | — | — |
| Potatoes | Tikari | — | 389 | 23,340 | 551 | 29,570 | 43 | 2,940 | — | — |
| Vegetables | Lahan | — | — | — | — | — | — | — | — | — |
| Miscellaneous | — | — | — | — | — | — | — | — | — | — |
| Fodder— | | | | | | | | | | |
| Lucerne Grass | Lusan Ghas | Medicago sativa | — | — | 1 | 20 | — | — | — | — |
| Grass | Benji | Do. Var. | — | — | 3 | 60 | — | — | — | — |
| Millet, etc. | Chahi | — | 4,531 | 46,240 | 1 | — | 2,649 | 80,980 | — | — |
| — | Maina | — | 18,231 | 2,17,540 | 7,397 | 2,81,809 | — | — | — | — |
| Sugarcane | Ganna | Saccharum officinarum | 103 | 23,100 | 67 | 7,125 | 43 | 4,300 | — | — |
| — | Shafal | — | — | — | — | — | 4 | 200 | — | — |
| Miscellaneous | Mahra | — | 2,323 | 61,780 | 137 | 2,740 | — | — | — | — |
| — | — | — | 1,370 | 80,550 | 133 | 1,993 | 2,161 | 31,160 | — | — |
| Total | | | 219,894 | 81,17,064 | 305,980 | 60,47,377 | 44,873 | 13,64,037 | 29,677 | 8,89,847 |
| Fallows | — | — | — | — | — | — | — | — | — | — |
| Single watering | — | — | — | — | — | — | — | — | — | — |
| Plantations | — | — | — | — | — | — | 100 | — | — | — |
| Miscellaneous | — | — | — | — | — | — | — | — | — | — |
| Waste of water | — | — | — | — | — | — | — | — | 53 | — |
| Palaver | — | — | — | — | — | — | — | — | — | — |
| GRAND TOTAL | | | 219,894 | 81,17,064 | 305,980 | 60,47,377 | 44,981 | 13,64,037 | 29,730 | 8,89,847 |

*Includes 1,243 acre.

CONCLUDED.

IN THE PUNJAB DURING THE YEAR 1916-17—CONCLUSION.

[illegible]

IV-E.

COMPARATIVE STATEMENT OF IRRIGATION AND RAINFALL FOR THE YEARS 1918-17 AND 1915-10 IN THE PUNJAB.

| CIVIL DISTRICT | OF THE CIVIL DISTRICT. | | | | Name | Culturable area commanded by Irrigation Works in column 5, in acres. | Area at present proposed to be annually irrigated by works specified in column 5. | AREA IRRIGATED IN ACRES. | | | | | RAINFALL, INCHES. | |
|----------------|------------------------|----------------------------|----------------------------|--|-----------|--|---|--------------------------|-------------|----------|----------|-------------|-------------------|--------|
| | Total area, in acres. | Culturable area, in acres. | Cultivated area, in acres. | 1916-17. | | | | 1915-16 | | 1918-17. | 1915-10. | | | |
| | | | | Kharif. | | | | Rabi. | Total. | | | Kharif. | Rabi. | Total. |
| 1 | 2 | 3 | 4 | 5 | (a) 5 | (a) 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Delli | 387,680 | 291,248 | 230,883 | Western Jumna Canal | 69,707 | 37,413 | 10,566 | 12,447 | 23,013 | 10,972 | 22,737 | 33,090 | 23,90 | 19,45 |
| Rohatk | 1,439,113 | 1,337,521 | 1,157,708 | | 072,473 | 260,381 | 85,787 | 119,061 | 205,728 | 88,533 | 123,138 | 200,959 | 19,31 | 10,95 |
| Karnal | 1,937,805 | 1,721,529 | 1,121,976 | | 043,144 | 243,355 | 84,371 | 118,101 | 204,373 | 81,409 | 123,147 | 204,554 | 24,69 | 14,85 |
| Ambala | 1,198,684 | 873,260 | 748,221 | | 4,805 | 2,493 | 1,519 | 1,233 | 2,753 | 1,260 | 1,304 | 2,564 | 52,25 | 21,78 |
| Hissar | 3,318,830 | 3,163,686 | 2,700,336 | Western Jumna Canal Sirhind Canal Ghaggar Canals | 517,413 | 225,737 | 102,703 | 145,259 | 247,952 | 118,650 | 131,957 | 250,613 | 17,78 | 5,69 |
| | | | | | 34,100 | 9,780 | 2,715 | 2,908 | 5,583 | 2,305 | 3,016 | 6,321 | 17,70 | 5,15 |
| | | | | Total | 72,978 | 46,831 | 10,237 | 18,090 | 28,327 | 4,318 | 17,788 | 22,008 | | |
| | | | | | 521,821 | 283,351 | 115,716 | 160,257 | 281,972 | 135,179 | 152,761 | 277,910 | | |
| Jind State | 852,013 | 807,434 | 749,528 | Western Jumna Canal Sirhind Canal | 210,223 | 60,000 | 29,002 | 85,231 | 64,253 | 26,143 | 31,714 | 57,857 | 21,23 | 13,40 |
| | | | | | 8,200 | 3,071 | 10,110 | 21,072 | (b) 40,182 | 17,193 | 28,757 | (c) 46,900 | | |
| | | | | Total | 227,442 | 63,071 | 15,113 | 53,863 | 104,435 | 43,336 | 61,481 | 104,817 | | |
| Bikaner State | 4,007,210 | 3,925,488 | 1,145,684 | Western Jumna Canal Ghaggar Canals | 1,762 | 480 | 324 | 637 | 961 | 483 | 85 | 508 | 17,65 | 2,88 |
| | | | | | 3,1618 | 17,309 | 3,254 | 8,788 | 12,040 | 12 | 3,153 | 3,163 | 13,91 | 2,22 |
| | | | | Total | 30,380 | 17,789 | 3,578 | 9,433 | 13,001 | 495 | 3,241 | 3,730 | | |
| Patiala State | 3,704,779 | 3,463,459 | 2,012,533 | Western Jumna Canal Sirhind Canal | 179,060 | 59,301 | 72,949 | 40,745 | 79,091 | 35,103 | 23,041 | 63,749 | 18,49 | 10,11 |
| | | | | | 313,902 | 108,018 | 210,704 | 323,203 | 533,067 | 204,419 | 382,866 | 587,285 | | |
| | | | | Total | 492,022 | 167,919 | 213,053 | 370,006 | (d) 013,861 | 239,527 | 411,507 | (e) 061,034 | | |
| Kalsia State | 131,753 | 87,502 | 76,253 | Western Jumna Canal Sirhind Canal | 2,451 | 1,382 | 813 | 910 | 1,722 | 721 | 797 | 1,518 | | |
| | | | | | 12,900 | 3,231 | 1,031 | 3,360 | 4,907 | 1,314 | 2,269 | 3,573 | | |
| | | | | Total | 15,350 | 4,613 | 2,443 | 4,276 | 6,719 | 2,085 | 3,056 | 5,091 | | |
| Ludhiana | 892,512 | 816,282 | 720,136 | Sirhind Canal | 289,452 | 70,507 | 25,550 | 32,557 | 58,413 | 28,735 | 35,283 | 83,906 | 17,32 | 9,14 |
| Kerzapore | 2,505,290 | 2,440,504 | 2,252,121 | | 1,258,231 | 431,607 | 203,818 | 337,110 | 570,808 | 171,468 | 412,721 | 687,169 | 15,10 | 5,28 |
| Nabha State | 680,480 | 688,273 | 604,712 | | 145,273 | 30,817 | 38,477 | 51,470 | (f) 92,953 | 38,503 | 84,570 | (g) 103,382 | | |
| Faridkot State | 405,249 | 388,153 | 371,055 | | 231,137 | 79,709 | 45,873 | 73,881 | 118,737 | 84,887 | 74,072 | 146,359 | | |
| Amritsar | 998,006 | 805,173 | 758,303 | Upper Bari Doab Canal | 609,402 | 281,985 | 183,087 | 209,342 | 398,859 | 161,201 | 209,825 | 871,128 | 27,05 | 12,81 |
| Gurdaspur | 1,165,408 | 943,046 | 827,364 | | 127,038 | 53,450 | 51,778 | 53,782 | 88,510 | 47,054 | 52,514 | 70,558 | 21,78 | 15,51 |

| | | | | | | | | | | | | | | |
|-----------------|-----------|-----------|-----------|---|--|--|---|---|---|---|---|---|-------------------------------------|-------------------------------------|
| Lahore | 1,750,968 | 1,515,817 | 1,222,637 | Upper Bari Doab Canal Upper Sutlej Inundation Canals Upper Chenab Canal Lower Bari Doab Canal Total | 866,216 231,805 17,383 7,826 1,173,219 | 457,530 93,956 3,625 4,422 559,533 | 330,811 20,232 1,873 2,311 361,157 | 388,227 32,271 860 1,911 781,358 | 719,038 53,503 2,772 4,152 781,358 | 281,580 20,300 500 1,488 303,917 | 412,931 28,455 1,190 1,588 414,154 | 594,510 48,765 1,750 3,058 748,071 | 32,62 25,83 18,42 ... | 64 5,65 ... |
| Montgomery | 2,747,759 | 2,531,874 | 928,085 | Upper Sutlej Inundation Canals Hajwari Canal Lower Bari Doab Canal Total | 617,911 850,952 1,468,863 771,736 | 235,298 539,533 771,736 | 193,228 154,016 310,166 | 128,320 307 190,911 325,563 | 251,518 380,957 630,031 781,358 | 113,897 92,370 200,235 303,917 | 110,404 134,008 244,193 450,391 | 223,981 223,376 450,391 | 12,54 12,90 ... | 1,90 1,95 ... |
| Multan | 3,811,257 | 3,378,405 | 1,179,071 | Sutlej Canal Chenab Inundation Canals Lower Sutlej Inundation Canals Hajwari Canal Lower Bari Doab Canal Total | 314,159 360,313 805,152 463,310 2,013,934 753,501 | 150,000 250,000 250,000 213,226 813,934 352,000 | 114,933 134,307 134,001 62,146 419,617 159,673 | 183,623 111,579 181,778 29,697 677,611 223,681 | 293,566 207,075 319,778 12,624 1,932,7 393,334 | 117,999 81,167 109,570 12,624 21,186 137,037 | 162,161 86,778 146,293 14,921 32,723 239,373 | 270,180 170,485 258,103 27,355 63,802 37,331 | 6,96 8,63 9,15 5,46 ... | 3,72 0,78 0,79 0,91 ... |
| Muzaffargarh | 3,687,301 | 3,080,970 | 753,501 | Muzaffargarh Inundation Canals | 674,932 | 352,000 | 159,673 | 223,681 | 393,334 | 137,037 | 239,373 | 37,331 | 4,31 | 0,78 |
| Dera Ghazi Khan | 3,476,190 | 2,511,165 | 1,153,327 | Indus Inundation Canals | 422,923 | 302,760 | 179,911 | 85,217 | 263,153 | 135,134 | 97,517 | 235,641 | 8,00 | 1,92 |
| Gujranwala | 2,492,310 | 2,277,745 | 1,454,931 | Lower Chenab Canal Upper Chenab Canal Total | 715,501 1,225,101 1,940,602 | 104,606 471,270 575,876 | 104,053 214,592 318,645 | 317,535 124,327 440,862 | 485,598 337,219 822,817 | 165,283 122,039 277,391 | 387,471 139,029 496,799 | 512,434 202,256 774,690 | 21,81 35,69 ... | 5,15 4,10 ... |
| Lyalpur | 2,104,210 | 1,904,819 | 1,469,369 | Lower Chenab Canal Upper Chenab Canal Total | 1,482,432 95,493 1,577,925 | 1,089,034 61,411 1,150,445 | 419,537 20,811 439,348 | 1,014,150 13,196 1,027,346 | 1,503,307 10,637 1,513,944 | 408,430 8,120 416,570 | 1,079,974 19,015 1,098,119 | 1,497,524 27,105 1,514,689 | 13,44 1,63 ... | 2,28 1,4 ... |
| Jhang | 2,171,717 | 1,981,614 | 836,423 | Lower Chenab Canal Muzaffargarh Inundation Canals Lower Jhelum Canal Total | 330,856 333,033 713,363 820,150 | 233,140 154,876 388,022 501,532 | 98,350 41,367 139,733 191,663 | 109,473 108 67,110 439,971 | 297,821 121 128,177 664,434 | 88,190 42 37,533 175,069 | 195,692 42 99,660 517,320 | 284,131 127,592 411,777 892,998 | 9,63 10,44 ... | 8,28 2,94 ... |
| Shahpur | 3,072,726 | 2,312,708 | 1,298,297 | Lower Jhelum Canal Shahpur (Imperial) Canals Shahpur (Provincial) Canals Upper Jhelum Canal Total | 820,150 62,954 48,840 1,830 953,224 | 42,000 21,170 888 503,650 | 10,083 9,863 ... | 27,088 21,549 73 521,678 | 48,769 31,404 72 732,679 | 9,420 4,537 ... | 17,320 14,367 ... | 26,769 18,594 738,061 | 15,50 30,06 30,08 | 4,22 3,63 ... |
| Gujrat | 1,456,110 | 1,167,520 | 880,091 | Lower Jhelum Canal Upper Jhelum Canal Total | 18,637 500,498 519,135 | 12,503 302,374 314,877 | 4,007 43,413 40,430 | 7,793 75,120 82,903 | 11,860 117,633 129,383 | 4,160 ... | 9,430 ... | 13,588 ... | ... | ... |
| Sialkot | 1,282,291 | 1,135,222 | 918,010 | Upper Chenab Canal Total | 182,395 17,003,713 | 53,438 8,260,786 | 39,311 3,893,815 | 8,138 6,080,039 | 67,449 0,579,824 | 27,844 3,240,183 | 6,047 5,694,811 | 33,891 8,694,811 | 30,18 ... | 11,96 ... |
| GRAND TOTAL | | | | | | | | | | | | | | |

(a) Columns 6 and 7 exclude the "culturable area commanded" and "area at present proposed to be annually irrigated" by the Native States Branches of the Sirhind Canal.

(b) Includes 27,725 acres irrigated on the Native States Branches of the Sirhind Canal.

(c) Ditto 478,254 acres by the Sirra Branch, Western Jammu Canal, in the Patiala State.

(d) Ditto 478,254 acres by the Sirra Branch, Western Jammu Canal, in the Patiala State.

(e) Ditto 50,655 acres by the Sirra Branch, Western Jammu Canal, in the Patiala State.

(f) Ditto 57,096 acres by the Sirra Branch, Western Jammu Canal, in the Patiala State.

**STATEMENT SHOWING OCCUPIER'S RATE IN FORCE ON THE CANALS IN THE
PUNJAB DURING THE YEAR 1916-17.**

| Authority. | Class. | Nature of crops. | RATE PER ACRE. | | Per. |
|--|--------|--|----------------|-----------|---|
| | | | Flow. | Lift. | |
| | | WESTERN JUMNA CANAL INCLUDING SIRSA BRANCH. | Rs A. P. | Rs. A. P. | |
| | | OCCUPIER'S RATE. | | | |
| Irrigation Branch Notifi- cation No. 097 R. I., dated 30th June 1916. | I | Sugarcane | 10 0 0 | 6 0 0 | Crop. |
| | II | Rice and water nuts | 8 8 0 | 4 0 0 | Do. |
| | III | Orchards, gardens, tobacco, poppy, drugs, vege- table, sp.oes, melons | 5 8 0 | 3 8 0 | Gardens and orchards per half-year, the rest per crop. |
| | III-A | Wheat | 5 0 0 | 3 4 0 | Crop. |
| | IV | Cotton, fibres, dyes, oil-seeds and all rabi crops except wheat, gram, masur, senji, maina and turnips. | 4 0 0 | 2 8 0 | Do. |
| | V | All kharif crops not otherwise specified | 3 0 0 | 1 12 0 | Do. |
| | VI | Gram, masur, senji, turnips, carrots and maina | 2 8 0 | 1 8 0 | Do. |
| | VII | Crops grown on th "scadh" of a previous crop Single watering before ploughing not followed by a canal irrigated crop in the same or next harvest | 1 4 0 | 0 12 0 | { Crop. Watering. |
| | VIII | Grass, village and District Board plantations— For any number of waterings in kharif season | 1 4 0 | 0 12 0 | Half-year. |
| | | For one watering in rabi season | 1 4 0 | 0 12 0 | Do. |
| | | For two or more waterings in rabi season | 2 8 0 | 1 8 0 | Do. |
| | | LOWER CHAUTANG NALA CANAL. | | | |
| | | OCCUPIER'S RATE. | | | |
| Irrigation Branch Notifi- cation No. 1631 I., dated 27th April 1900. | I | Sugarcane, rice, water-nuts | 4 2 0 | 2 12 0 | Crop. |
| | IV | Cotton, indigo maize | 2 8 0 | 1 10 8 | Do. |
| | V | Other kharif crops | 1 12 0 | 1 2 8 | Do. |
| | VII | Special rate—Single watering before ploughing for rabi followed by a crop | 1 2 0 | 0 12 0 | Do. |
| | | SIRHIND CANAL. | | | |
| | | ZONE I. | | | |
| | | <i>All lands irrigated by the British Branches of the Sirhind Canal with the exception of those situated in the Fazilka Tahsil of the Feroze- pore District.</i> | | | |
| Irrigation Branch Notifica- tion No. 278 R. I., dated 21st December 1904 ... | I | Sugarcane | 12 0 0 | 6 0 0 | Crop. |
| | II | Rice, orchard, gardens, poppy, indigo, dyes, drugs and spices, water-nuts, maize, wheat, vegetables, except turnips | 5 4 0 | 2 10 0 | Orchards and gardens per- half-year; the rest per crop. |
| | III | Cotton, chillies, melons, tobacco, fibres, barley, oil-seeds, berse, senji, all non-fodder crops in kharif and rabi not specified | 4 0 0 | 2 0 0 | Crop. |
| | IV | Bajra, Jowar, ohari, moth, mung, masur, guar, चना, masur, gram, turnips, peas, and all kharif and rabi fodder crops not specified | 3 4 0 | 1 10 0 | Do. |
| Irrigation Branch Notifica- tion No. 824 R. I., dated 12th May 1913. | V | Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest Also crops grown on the "scadh" of a previous crop | 1 8 0 | 0 12 0 | { Each watering. Crop. |
| | VI | Special rates which may be made applicable to channels selected by the Local Government— A single watering before ploughing followed by a rabi crop | 2 4 0 | 1 2 0 | |

**STATEMENT SHOWING OCCUPIER'S RATE IN FORCE ON THE CANALS IN THE
PUNJAB DURING THE YEAR 1916-17—CONTINUED.**

| Authority. | Class. | Nature of crops. | RATE PER ACRE. | | Per |
|---|--------|--|----------------|-----------|--|
| | | | Flow. | Lift. | |
| | | SIRHIND CANAL—CONCLUDED. | RS. A. P. | RS. A. P. | |
| | | Zone II. | | | |
| | | <i>All lands irrigated by the British Branches of the Sirhind Canal in the Fazilka Taluk of the Ferozepore District.</i> | | | |
| Irrigation Branch Notification No. 278 R. I., dated 21st December 1904. | I | Sugarcane | 10 0 0 | 5 0 0 | Crop. |
| | II | Rice, orchards, gardens, poppy, indigo, dyos, drugs and spices, water-nuts, maize, wheat, vegetables (except turnips) | 5 0 0 | 2 8 0 | Orchards and gardens per half-year; the rest per crop. |
| | III | Cotton, chillies, melons, tobacco, fibres, barley, oil seeds, herbs, saff, all non-fodder crops in kharif and rabi not specified | 8 12 0 | 1 14 0 | Crop. |
| | IV | Bajra, jowar, chani, moli, mung, mash, guar, china, masur, gram, turnips, peas and all kharif and rabi fodder crops not specified | 9 0 0 | 1 8 0 | Do. |
| Irrigation Branch Notification No. 624 R. I., dated 13th May 1918. | V | Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest | 1 8 0 | 0 12 0 | Each watering. |
| | | Also crops grown on the "seed" of a previous crop | | | Crop. |
| | | <i>All lands irrigated by other than the British Branches of the Sirhind Canal.</i> | | | |
| Irrigation Branch Notification No. 6616 I., dated 27th November 1888. | I | Sugarcane, rice, water-nuts | 7 8 0 | 5 0 0 | Crop. |
| | II | Gardens, orchards, tobacco, poppy, vegetables, indigo, maize | 4 8 0 | 3 0 0 | Do. |
| | III | Cottons, fibres, all dyes (except indigo), all rabi crops (except gram and masur) | 3 12 0 | 2 8 0 | Do. |
| | IV | All kharif crops not specified above and rabi crops of gram and masur | 2 10 0 | 1 12 0 | Do. |
| Irrigation Branch Notification No. 624 R. I., dated 12th May 1918. | V | Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest | 0 12 0 | 0 8 0 | Each watering. |
| | VI | Special rate which may be made applicable to channels selected by the Local Government. | | | |
| | | A single watering before ploughing for rabi followed by a rabi crop | 1 8 0 | 1 0 0 | Crop. |

**STATEMENT SHOWING OCCUPIER'S RATE IN FORCE ON THE CANALS IN THE
PUNJAB DURING THE YEAR 1916-17—CONTINUED.**

| Authority. | Class. | Nature of crops. | RATE PER ACRE. | | Per. |
|--|--------|--|----------------|-----------|--|
| | | | Flow. | Lift. | |
| | | UPPER BARI DOAB CANAL. | Rs. A. P. | Rs. A. P. | |
| | | OCCUPIER'S RATE. | | | |
| Irrigation Branch Notification No. 2821 I., dated 10th June 1891. | I | Sugarcane and water-nuts | 7 1 0 | 8 8 6 | Crop. |
| | II | Rice | 8 0 10 | 8 0 5 | Do. |
| | III | Orchards and gardens, tobacco, poppy and other drugs, vegetables, melons | 4 8 8 | 2 4 4 | Orchards and gardens per half-year; the rest per crop. |
| | IV | All dyes, fibres and oilseeds; all rabi crops except gram and masur | 8 12 0 | 1 14 3 | Crop. |
| | V | All kharif crops not specified above; rabi crops of gram and masur; all fodder crops | 2 12 5 | 1 6 2½ | Do. |
| | VI | Special rates, which may be made applicable to channels selected by the Local Government: a single watering before ploughing for rabi followed by a crop | 2 0 4 | 1 0 2 | Do. |
| Irrigation Branch Notification No. 628 R. I., dated 12th May 1913. | VII | A single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest Crops grown on the "wadā" of a previous crop | 1 0 2 | 0 8 1 | Each watering. Crop. |
| | VIII | Village plantations on areas to which the provisions of Act III of 1893 have been extended and District Board plantations within the Chunian Colony— | | | |
| Irrigation Branch Notifications No. 849 R. I., dated 26th March 1907; No. 638 R. I., dated 11th December 1907; No. 930 R. I., dated 2nd July 1908. | | For any number of waterings in the kharif season | 1 3 4 | 0 9 8 | Half-year. |
| | | For one watering in rabi season | 1 3 4 | 0 9 8 | Do. |
| | | For two or more waterings in rabi season | 2 11 7 | 1 6 0 | Do. |
| | | LOWER BARI DOAB CANAL. | | | |
| | | OCCUPIER'S RATE. | | | |
| Irrigation Branch Notification No. 647 R. I., dated 23rd April 1913. | I | Cane and water nuts | 9 0 0 | 4 8 0 | Crop. |
| | II | Rice | 7 8 0 | 3 12 0 | Do. |
| | III | Orchards, gardens, tobacco, poppy, indigo, drugs, vegetables, melons and wheat | 5 0 0 | 2 8 0 | Orchards and gardens per half-year; rest per crop. |
| | IV | Cotton, fibres, dyes (other than indigo), oilseeds and all rabi crops, except wheat, gram, masur, senji, maida and turnips | 4 0 0 | 2 0 0 | Crop. |
| | V | All kharif crops not otherwise specified | 3 0 0 | 1 8 0 | Do. |
| | VI | (a) Gram, masur, senji, turnips and maida (b) Crops grown on the "wadā" of a previous crop. (c) Single watering before ploughing for rabi followed by a rabi crop to be applicable only to channels selected by the Local Government. | 2 4 0 | 1 2 0 | (a) Crop, (b) and (c) acre. |
| | VII | Grass, village and District Board plantations— | | | |
| | | For any number of waterings in kharif season | 1 4 0 | 0 10 0 | Half-year. |
| | | For one watering in rabi season | 1 4 0 | 0 10 0 | Do. |
| | | For two or more waterings in rabi season | 2 8 0 | 1 4 0 | Do. |
| | VIII | (a) Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest. (b) Hemp (gun) and indigo which has been ploughed in as green manure before the 15th September. | 0 8 0 | 0 4 0 | Acre. |

**STATEMENT SHOWING OCCUPIER'S RATE IN FORCE ON THE CANALS IN THE
PUNJAB DURING THE YEAR 1916-17—CONTINUED.**

| Authority. | Class. | Nature of crops. | RATE PER ACRE. | | Pec. |
|---|--------|---|-------------------------|---------------------------|--|
| | | | Flow. | Lift. | |
| | | | Rs. A. P. | Rs. A. P. | |
| UPPER CHENAB CANAL. | | | | | |
| OCCUPIER'S RATE. | | | | | |
| Irrigation Branch Notification No. 6228 R. I., dated 8th August 1912. | I | Cane and water-nuts | 9 0 0 | 4 8 0 | Crop. |
| | II | Rice | 7 8 0 | 3 12 0 | Do. |
| | III | Orchards, gardens, tobacco, poppy, indigo, drugs, vegetable, melons and wheat | 5 0 0 | 2 8 0 | Orchards and gardens per half-year; rest per crop. |
| | IV | Cotton, fibres, dyes (other than indigo), oilseeds and all rabi crops, except wheat, gram, masur, senji, grains and turais | 4 0 0 | 2 0 0 | Crop. |
| | V | All kharif crops not otherwise specified | 3 0 0 | 1 8 0 | Do. |
| | VI | (a) Gram, masur, senji, turais and mains (b) Crops grown on the "soil" of a previous crop. (c) Single watering before ploughing for rabi followed by a rabi crop to be applicable only to channels selected by the Local Government. | 2 4 0 | 1 2 0 | (a) Crop, (b) and (c) acre. |
| Irrigation Branch Notification No. 55 R. I., dated 18th January 1918. | VII | Grass, village and District Board plantations— For any number of waterings in the kharif season For one watering in rabi season For two or more waterings in rabi season | 1 4 0 1 4 0 2 8 0 | 0 10 0 0 10 0 1 4 0 | Half-year. Do. Do. |
| | VIII | (a) Single watering before ploughing not followed by a canal-irrigated crop in the same or the next harvest. (b) Hemp (gan) and indigo which has been ploughed as green manure before the 15th September. | 0 8 0 | 0 4 0 | Acre. |
| LOWER CHENAB CANAL. | | | | | |
| OCCUPIER'S RATE. | | | | | |
| <i>Applicable to—</i> | | | | | |
| (a) all estates in the Gujranwala District which were established before the 1st January 1892; | | | | | |
| (b) all estates in the Jhang District which were established before 1st January 1892, except those which were transferred from the Montgomery to the Jhang District by Revenue and Agriculture Notification No. 870 of 4th May 1899; and such proprietary wells as are now or may hereafter be included within the boundaries of the Colony manure; | | | | | |
| (c) all estates in the Gujara and Montgomery Tehsils of the Montgomery District which were established before 1st January 1894; and | | | | | |
| (d) all estates in the Multan and Lahore Districts which were established before 1st April 1902. | | | | | |

**STATEMENT SHOWING OCCUPIER'S RATE/IN FORCE ON THE CANALS IN THE
PUNJAB DURING THE YEAR 1916-17—CONTINUED.**

| Authority. | Class. | Nature of crops. | RATE PER ACRE. | | Per |
|--|--------|--|----------------|-----------|--|
| | | | Flow. | Lift. | |
| | | | Rs. A. P. | Rs. A. P. | |
| | | LOWER CHENAB CANAL—CONTINUED. | | | |
| | | OCCUPIER'S RATE—continued. | | | |
| Irrigation Branch Notification No. 617 R. I., dated 18th June 1903. | I | Sugarcane, water-nuts | 8 0 0 | 4 4 0 | Crop. |
| | II | Rice | 8 12 0 | 8 10 0 | Do. |
| | III | Orchards, gardens, tobacco, poppy, indigo, drugs, vegetables, melons | 5 8 0 | 3 0 0 | Orchards and gardens per half-year; the rest per crop. |
| | IV | Cotton, fibres, dyes (other than indigo), oilseeds, maize and all rabi crops (except gram and masur) | 4 4 0 | 2 5 0 | Crop. |
| | V | All kharif crops not otherwise specified, and gram and masur | 3 0 0 | 1 12 0 | Do. |
| Irrigation Branch Notification No. 688 R. I., dated 12th May 1918. | VI | Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest | 1 12 0 | 1 2 0 | Each watering. |
| | | Also crops grown on the "wadā" of a previous crop | | | Crop. |
| | VII | Single watering before ploughing for rabi followed by a rabi crop, to be applicable only to channels selected by the Local Government | 2 4 0 | 1 6 0 | Acro. |
| | VIII | Grass— | | | |
| | | For any number of waterings in the kharif season | 1 4 0 | 0 10 0 | Half-year. |
| Irrigation Branch Notification No. 6141 R. I., dated 12th October 1903 | | For one watering in the rabi season | 1 4 0 | 0 10 0 | Do. |
| | | For two or more waterings in the rabi season | 2 8 0 | 1 4 0 | Do. |
| | | <i>Applicable to estates other than those referred to in Notification No. 617 R. I., dated 18th June 1903, above.</i> | | | |
| | I | Sugarcane | 7 8 0 | 3 12 0 | Crop. |
| | II | Rice | 5 4 0 | 3 2 0 | Do. |
| Irrigation Branch Notification No. 82 R. I., dated 6th January 1892. | III | Orchards, gardens, tobacco, indigo, vegetables, poppy, dhanlo, zira, saunf, melons | 5 0 0 | 2 8 0 | Orchards and gardens per half-year; the rest per crop. |
| | IV | Cotton, fibres, dyes (other than indigo), oilseeds, maize and all rabi crops (except gram and masur) | 3 12 0 | 1 14 0 | Crop. |
| | V | All kharif crops not otherwise specified, and gram and masur | 2 8 0 | 1 4 0 | Do. |
| | VI | Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest | 1 4 0 | 0 10 0 | Each watering. |
| | VII | Also crops grown on the "wadā" of a previous crop | | | Crop. |
| Irrigation Branch Notification No. 688 R. I., dated 12th May 1918. | VIII | Grass, village plantations in Colony villages, and District Board plantations in the Colony— | | | |
| | | For any number of waterings in the kharif season | 1 4 0 | 0 10 0 | Half-year. |
| | | For one watering in the rabi season | 1 4 0 | 0 10 0 | Do. |
| | | For two or more waterings in the rabi season | 2 8 0 | 1 4 0 | Do. |
| | | | | | |
| Irrigation Branch Notifications No. 6141 R. I., dated 12th October 1903, and No. 813 R. I., dated 19th December 1905, and No. 701 R. I., dated 11th December 1907. | | | | | |
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**STATEMENT SHOWING OCCUPIER'S RATE IN FORCE ON THE CANALS IN THE
PUNJAB DURING THE YEAR 1916-17—CONTINUED.**

| Authority. | Class. | Nature of crops. | RATE PER ACRE. | | For. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------|---|--|---|--------------------------------------|--------------------------------|------------------|------------|---------------------|-------------------------------------|------------------|----------|-------|---|----------|-------------|--------------------|--------------------------------------|-----------|-------|---|--|----------|------------------------|---|-------|-------|--|----------|-------------|-------------------------|--|-----------|-------|---|--|------------------|-------------|---------------------|-------------------------------------|--|--|-----------|-----------|-------------------------|---|--|--|-----------|-----------|------------------------|-----------------------|--|--|------------------|--------------|-------------------------|--|--|--|-------------|-----------|-------|---|--|--|-------------|------------|-----|----------------------------------|--|--|------------------|-------|-----|---|--|--|-------|-------------|-----|--------------------------------------|--|--|----------|-----------|-----|---|--|--|-----------|-----------|-----|---|--|--|-------------|-------------|-----|--|--|--|------------------|-----------|-----|-------------------------------|--|--|------------------|-----------|-----|-------------------------------|--|--|--|--|--|
| | | | Flow. | Lift. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | LOWER CHENAB CANAL—CONTINUED. OCCUPIER'S RATE—concluded. Applicable to the following estates selected by the Local Government. | Rs. A. P. | Rs. A. P. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <table><tr><th>Division.</th><th>District.</th><th>Settlement arrangement circle.</th><th>No. of Chaks and Branch.</th></tr><tr><td>Upper Gugera.</td><td>Gujranwala</td><td>Gugera Branch I.</td><td>537, 578 and 530, Gugera Branch.</td></tr><tr><td>Lower Gugera.</td><td>Lyallpur</td><td>Ditto</td><td>71 and part of 75 and 161, Gugera Branch.</td></tr><tr><td rowspan="2">Lyallpur</td><td>Lyallpur...</td><td>Jhang Branch I.</td><td>167 and half of 25, Jhang Branch.</td></tr><tr><td>Jhang ...</td><td>Ditto</td><td>120, 120, 127, 141, 144, 144, 173, 153, 170 and 167, Jhang Branch.</td></tr><tr><td rowspan="2"></td><td>Lyallpur</td><td>Jhang Branch II.</td><td>221, 221, 225, 220 and 220, Jhang Branch.</td></tr><tr><td>Jhang</td><td>Ditto</td><td>122, 122, 125, 120, 127, 163, 208, 209, 212, 211, 216, 217, 220, 221, 247, 210, 210, 217, 277, 275, 270 and 270, Jhang Branch.</td></tr><tr><td rowspan="2">Jhang...</td><td>Lyallpur...</td><td>Jhang Branch III.</td><td>367, 368, 370, 401, 402, 406, 400, 410, 411, 412, 438 and 430, Jhang Branch.</td></tr><tr><td>Jhang ...</td><td>Ditto</td><td>412, 417, 410, 417, 418, 410, 410, 451, and 403, Jhang Branch.</td></tr><tr><td>Irrigation Branch Notifi- cation No. 0276 R. I., dated 26th August 1912.</td><td>Lower Gugera.</td><td>Lyallpur...</td><td>Gugera Branch I.</td><td>110, 207 and 240, Gugera Branch.</td><td></td></tr><tr><td></td><td>Jhang ...</td><td>Ditto ...</td><td>Jhang Branch III.</td><td>421, 331, 310, 312, 373, 470 and 410, Jhang Branch.</td><td></td></tr><tr><td></td><td>Ditto ...</td><td>Jhang ...</td><td>Jhang Branch II.</td><td>170, Jhang Branch.</td><td></td></tr><tr><td>Irrigation Branch Notifi- cation No. 90 R. I., dated 22nd January 1913.</td><td>Lower Gugera.</td><td>Lyallpur ...</td><td>Gugera Branch II.</td><td>264, 265, 317, 328, 329, 310 and 310, Gugera Branch.</td><td></td></tr><tr><td></td><td>Bahawal ...</td><td>Ditto ...</td><td>Ditto</td><td>507, 501, 502, 503, 501, 506, 512, 515 and 516, Gugera Branch.</td><td></td></tr><tr><td>Irrigation Branch Notifi- cation No. 3301 R. I., dated 21st September 1914.</td><td>Khaniki ...</td><td>Gujranwala</td><td>...</td><td>11, 122 and 250, Bakh Branch.</td><td></td></tr><tr><td></td><td>Upper Gugera.</td><td>Ditto</td><td>...</td><td>12, 12, 20, 30, 31, 24 and 40, Bakh Branch.</td><td></td></tr><tr><td></td><td>Ditto</td><td>Lyallpur...</td><td>...</td><td>27, 01, 107 and 100, Bakh Branch.</td><td></td></tr><tr><td></td><td>Lyallpur</td><td>Ditto ...</td><td>...</td><td>175, 211, 217, 215, 240 and 241, Bakh Branch.</td><td></td></tr><tr><td></td><td>Jhang ...</td><td>Jhang ...</td><td>...</td><td>405, 475, 470, 470, 480, 491, 491, 480, 480, 403, 406, 400, 503, 501 and 500, Jhang Branch.</td><td></td></tr><tr><td></td><td>Bahawal ...</td><td>Lyallpur...</td><td>...</td><td>167, 578, 761, 765, 887, 613, 618, 616, 621, 622 and 623, Bahawal Branch.</td><td></td></tr><tr><td></td><td>Lower Gugera.</td><td>Ditto ...</td><td>...</td><td>321, Gugera Branch, Lower.</td><td></td></tr><tr><td></td><td>Upper Gugera.</td><td>Ditto ...</td><td>...</td><td>508, Gugera Branch, Upper.</td><td></td></tr></table> | Division. | District. | Settlement arrangement circle. | No. of Chaks and Branch. | Upper Gugera. | Gujranwala | Gugera Branch I. | 537, 578 and 530, Gugera Branch. | Lower Gugera. | Lyallpur | Ditto | 71 and part of 75 and 161, Gugera Branch. | Lyallpur | Lyallpur... | Jhang Branch I. | 167 and half of 25, Jhang Branch. | Jhang ... | Ditto | 120, 120, 127, 141, 144, 144, 173, 153, 170 and 167, Jhang Branch. | | Lyallpur | Jhang Branch II. | 221, 221, 225, 220 and 220, Jhang Branch. | Jhang | Ditto | 122, 122, 125, 120, 127, 163, 208, 209, 212, 211, 216, 217, 220, 221, 247, 210, 210, 217, 277, 275, 270 and 270, Jhang Branch. | Jhang... | Lyallpur... | Jhang Branch III. | 367, 368, 370, 401, 402, 406, 400, 410, 411, 412, 438 and 430, Jhang Branch. | Jhang ... | Ditto | 412, 417, 410, 417, 418, 410, 410, 451, and 403, Jhang Branch. | Irrigation Branch Notifi- cation No. 0276 R. I., dated 26th August 1912. | Lower Gugera. | Lyallpur... | Gugera Branch I. | 110, 207 and 240, Gugera Branch. | | | Jhang ... | Ditto ... | Jhang Branch III. | 421, 331, 310, 312, 373, 470 and 410, Jhang Branch. | | | Ditto ... | Jhang ... | Jhang Branch II. | 170, Jhang Branch. | | Irrigation Branch Notifi- cation No. 90 R. I., dated 22nd January 1913. | Lower Gugera. | Lyallpur ... | Gugera Branch II. | 264, 265, 317, 328, 329, 310 and 310, Gugera Branch. | | | Bahawal ... | Ditto ... | Ditto | 507, 501, 502, 503, 501, 506, 512, 515 and 516, Gugera Branch. | | Irrigation Branch Notifi- cation No. 3301 R. I., dated 21st September 1914. | Khaniki ... | Gujranwala | ... | 11, 122 and 250, Bakh Branch. | | | Upper Gugera. | Ditto | ... | 12, 12, 20, 30, 31, 24 and 40, Bakh Branch. | | | Ditto | Lyallpur... | ... | 27, 01, 107 and 100, Bakh Branch. | | | Lyallpur | Ditto ... | ... | 175, 211, 217, 215, 240 and 241, Bakh Branch. | | | Jhang ... | Jhang ... | ... | 405, 475, 470, 470, 480, 491, 491, 480, 480, 403, 406, 400, 503, 501 and 500, Jhang Branch. | | | Bahawal ... | Lyallpur... | ... | 167, 578, 761, 765, 887, 613, 618, 616, 621, 622 and 623, Bahawal Branch. | | | Lower Gugera. | Ditto ... | ... | 321, Gugera Branch, Lower. | | | Upper Gugera. | Ditto ... | ... | 508, Gugera Branch, Upper. | | | | | |
| Division. | District. | Settlement arrangement circle. | No. of Chaks and Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Upper Gugera. | Gujranwala | Gugera Branch I. | 537, 578 and 530, Gugera Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lower Gugera. | Lyallpur | Ditto | 71 and part of 75 and 161, Gugera Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lyallpur | Lyallpur... | Jhang Branch I. | 167 and half of 25, Jhang Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Jhang ... | Ditto | 120, 120, 127, 141, 144, 144, 173, 153, 170 and 167, Jhang Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Lyallpur | Jhang Branch II. | 221, 221, 225, 220 and 220, Jhang Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Jhang | Ditto | 122, 122, 125, 120, 127, 163, 208, 209, 212, 211, 216, 217, 220, 221, 247, 210, 210, 217, 277, 275, 270 and 270, Jhang Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jhang... | Lyallpur... | Jhang Branch III. | 367, 368, 370, 401, 402, 406, 400, 410, 411, 412, 438 and 430, Jhang Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Jhang ... | Ditto | 412, 417, 410, 417, 418, 410, 410, 451, and 403, Jhang Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Irrigation Branch Notifi- cation No. 0276 R. I., dated 26th August 1912. | Lower Gugera. | Lyallpur... | Gugera Branch I. | 110, 207 and 240, Gugera Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Jhang ... | Ditto ... | Jhang Branch III. | 421, 331, 310, 312, 373, 470 and 410, Jhang Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Ditto ... | Jhang ... | Jhang Branch II. | 170, Jhang Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Irrigation Branch Notifi- cation No. 90 R. I., dated 22nd January 1913. | Lower Gugera. | Lyallpur ... | Gugera Branch II. | 264, 265, 317, 328, 329, 310 and 310, Gugera Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Bahawal ... | Ditto ... | Ditto | 507, 501, 502, 503, 501, 506, 512, 515 and 516, Gugera Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Irrigation Branch Notifi- cation No. 3301 R. I., dated 21st September 1914. | Khaniki ... | Gujranwala | ... | 11, 122 and 250, Bakh Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper Gugera. | Ditto | ... | 12, 12, 20, 30, 31, 24 and 40, Bakh Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Ditto | Lyallpur... | ... | 27, 01, 107 and 100, Bakh Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Lyallpur | Ditto ... | ... | 175, 211, 217, 215, 240 and 241, Bakh Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Jhang ... | Jhang ... | ... | 405, 475, 470, 470, 480, 491, 491, 480, 480, 403, 406, 400, 503, 501 and 500, Jhang Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Bahawal ... | Lyallpur... | ... | 167, 578, 761, 765, 887, 613, 618, 616, 621, 622 and 623, Bahawal Branch. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Lower Gugera. | Ditto ... | ... | 321, Gugera Branch, Lower. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Upper Gugera. | Ditto ... | ... | 508, Gugera Branch, Upper. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Irrigation Branch Notifi- cation No. 112 R. I., dated 30th January 1912. | IV | Cotton fibres, dyes, other than indigo, oilseeds, maize, and all rabi crops except gram and masur | 3 0 0 | 1 12 0 | Crop. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | V | All kharif crops not otherwise specified and gram and masur. | 2 0 0 | 1 4 0 | Do. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**STATEMENT SHOWING OCCUPIER'S RATE IN FORCE ON THE CANALS IN THE
PUNJAB DURING THE YEAR 1916-17—CONTINUED.**

| Authority. | Class. | Nature of crops. | RATE PER ACRE. | | Per. |
|---|---|--|----------------|--------|--|
| | | | Flow. | Lift. | |
| Irrigation Branch Notification No. 037 R. I., dated 6th June 1918. | | UPPER JHELUM CANAL. | | | |
| | | OCCUPIER'S RATE. | | | |
| | I | Cane and water-nuts | 9 0 0 | 4 8 0 | Crop. |
| | II | Rice | 7 8 0 | 8 12 0 | Do. |
| | III | Orchards, gardens, tobacco, poppy, indigo, drugs, vegetables, melons and wheat | 6 0 0 | 2 8 0 | Orchards and gardens per half-year, rest per crop. |
| | IV | Cotton, fibres, dyes (other than indigo), oilseeds and all rabi crops, except wheat, gram, masur, sonji, maize and turnips | 4 0 0 | 2 0 0 | Crop. |
| | V | All kharif crops not otherwise specified | 3 0 0 | 1 8 0 | Do. |
| | VI | (a) Gram, masur, sonji, turnips and maize | 2 4 0 | 1 2 0 | (a) Crop. |
| | | (b) Crops grown on the "wadā" of a previous crop | | | (b) Acre. |
| | | (c) Single waterings before ploughing for rabi followed by a rabi crop to be applicable only to the following channels:— | | | (c) Acre. |
| | 11 R. of Machiana kharif distributary. | | | | |
| | Maio Line, Upper Jhelum Canal. | | | | |
| | | 12 R. or Samanpudi kharif distributary. | | | |
| | | 13 R. or Sareki kharif distributary. | | | |
| | | 14 R. or Phalia kharif distributary. | | | |
| | Gujrat Branch, Upper Jhelum Canal. | 2 R. or Phalis Dosharka kharif distributary. | | | |
| | | These channels will be open only between the 1st April and 15th October, both dates inclusive. | | | |
| | VII | Grass, village and district board plantations:— | | | |
| | | For any number of waterings in the kharif season | 1 4 0 | 0 10 0 | Half-year. |
| | | For one watering in rabi season | 1 4 0 | 0 10 0 | Do. |
| | | For two or more waterings in rabi season | 2 8 0 | 1 4 0 | Do. |
| | VIII | (a) Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest. | 0 8 0 | 0 4 0 | Acre. |
| | | (b) Hemp (gan) and indigo which have been ploughed as green manure before the 15th September. | | | |
| | | LOWER JHELUM CANAL. | | | |
| | | OCCUPIER'S RATE. | | | |
| Irrigation Branch Notification No. 07 R. I., dated 25th May 1902. | I | Sugarcane, water-nuts | 10 0 0 | 5 0 0 | Crop. |
| | II | Rice | 6 4 0 | 3 2 0 | Do. |
| | III | Orchards, gardens, tobacco, indigo, vegetables, drugs, poppy and melons | 6 0 0 | 2 8 0 | Orchards and gardens per half-year; the rest per crop. |
| | IV | Cotton, fibres, dyes (other than indigo), oilseeds, maize and all rabi crops except gram and masur | 3 12 0 | 1 12 0 | Crop. |
| | V | All other kharif crops, gram and masur, and all crops grown for fodder | 2 8 0 | 1 4 0 | Do. |
| | VI | Single watering before ploughing, not followed by a canal-irrigated crop in the same or next harvest. | 1 4 0 | 0 10 0 | Each watering. |
| | Crops grown on the "wadā" or moisture of a previous crop. | Crop. | | | |
| Irrigation Branch Notification No. 0121 R. I., dated 31st September 1903, No. 310 R. I., dated 19th December 1905, and No. 695 R. I., dated 11th December 1907. | VII | Single watering before ploughing for rabi followed by a rabi crop, to be applicable only to channels selected by the Local Government | 2 8 0 | 1 4 0 | Crop. |
| | VIII | Grass, village plantations in Colony villages and District Board plantations in the Colony:— | | | |
| | | For any number of waterings in the kharif season | 1 4 0 | 0 10 0 | Half-year. |
| | | For one watering in the rabi season | 1 4 0 | 0 10 0 | Do. |
| | | For two or more waterings in the rabi season | 2 8 0 | 1 4 0 | Do. |

**STATEMENT SHOWING OCCUPIER'S RATE IN FORCE ON THE CANALS IN THE
PUNJAB DURING THE YEAR 1916-17—CONTINUED.**

| Authority. | Class. | Nature of crops. | RATE PER ACRE. | | Per |
|--|--------|---|----------------|-----------|--|
| | | | Flow. | Lift. | |
| | | | Rs. A. P. | Rs. A. P. | |
| | | LOWER JHELUM CANAL—CONCLUDED. | | | |
| | | <i>OccUPIER'S RATE—concluded.</i> | | | |
| | | <i>Applicable to—</i> | | | |
| | | (1) <i>All villages or portions of villages in the Bhakra Tahsil irrigated from the Khadir Feeder or Khadir Distributory.</i> | | | |
| | | (2) <i>All villages in the Shakpur Tahsil, except Sher Muhammadwala and Wagonal and except all villages or portions of villages irrigated from the Sahiwal Feeder including the Sahiwal Distributory and Gondal Distributory.</i> | | | |
| | | (3) <i>The following villages in the Sargodha Tahsil:—</i> | | | |
| | | Northern Branch Chaks— | | | |
| | | Nos. 89, 93, 94, 95, 103, 104, 105, 108, 110, 112, 115 to 174 inclusive. | | | |
| | | Southern Branch Chaks— | | | |
| | | Nos. 60, 61, 63, 131, 133, 134, 135, 187 to 141 inclusive and Chak Jodh on the Khadir Distributory. | | | |
| Irrigation Branch Notifications No. 409 R. I., dated 20th March 1912, and No. 433 R. I., dated 3rd April 1912. | I | Sugarcane and water-nuts | 7 8 0 | 3 12 0 | Crop. |
| | II | Rice | 4 0 0 | 2 0 0 | Do. |
| | III | Orchards, gardens, indigo, vegetables, drugs and melons | 5 0 0 | 2 8 0 | Orchards and gardens per half-year; the rest per crop. |
| | IV | Wheat | 3 4 0 | 1 10 0 | Crop. |
| | V | Cotton and oilseeds | 3 0 0 | 1 8 0 | Do. |
| Irrigation Branch Notification No. 602 R. I., dated 12th May 1918. | VI | Fibres (other than cotton), dyes (other than indigo), maize and all rabi crops other than wheat, gram and masur | 2 8 0 | 1 4 0 | Do. |
| | VII | All other kharif crops, gram, masur and all crops grown for fodder (including turnips) | 2 0 0 | 1 0 0 | Do. |
| | VIII | Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest | 1 4 0 | 0 10 0 | Each watering. |
| | | Crops grown on "excess" or moisture of a previous crop | | | Crop. |
| | IX | Single watering before ploughing for rabi followed by a rabi crop, to be applicable only to channels selected by the Local Government | 2 8 0 | 1 4 0 | Crop. |
| | X | Grass, village plantations in Colony villages and District Board plantations in the colony— | | | |
| | | For any number of waterings in the kharif season | 1 4 0 | 0 10 0 | Half-year. |
| | | For one watering in the rabi season | 1 4 0 | 0 10 0 | Do. |
| | | For two or more waterings in the rabi season | 2 8 0 | 1 4 0 | Do. |

**STATEMENT SHOWING OCCUPIER'S RATE IN FORCE ON THE CANALS IN THE
PUNJAB DURING THE YEAR 1916-17—CONTINUED.**

| Authority. | Class. | Nature of crops. | RATE PER ACRE. | | Per | |
|---|--|---|---|-----------|--------|-----------------------|
| | | | Flow. | Lift. | | |
| Irrigation Branch Notification No. 423 L., dated 7th March 1898. | | LOWER SONAH AND PARA CANALS. | Rs. A. P. | Rs. A. P. | | |
| | | OCCUPIER'S RATE. | | | | |
| | I | Rice, gardens and pepper | 3 4 0 | 1 10 0 | Acre. | |
| | II | Cotton, sugarcane, melons, til and hemp | 2 4 0 | 1 2 0 | Do. | |
| | III | All other kharif crops | 1 4 0 | 0 10 0 | Do. | |
| | IV | All matured rabi crops, plantations and vegetables. | 1 0 0 | 0 8 0 | Do. | |
| | V | Failed rabi crops and grasses | 0 8 0 | 0 4 0 | Do. | |
| | | UPPER SUTLEJ INUNDATION CANALS. | | | | |
| | | OCCUPIER'S RATE. | | | | |
| | | Montgomery District. | | | | |
| Irrigation Branch Notification No. 422 L., dated 7th March 1898. | I | Rice, gardens and pepper | 3 4 0 | 1 10 0 | Acre. | |
| | II | Cotton, sugarcane, melons, til and hemp | 2 4 0 | 1 2 0 | Do. | |
| | III | All other kharif crops | 1 4 0 | 0 10 0 | Do. | |
| | IV | All matured rabi crops, plantations and vegetables. | 1 0 0 | 0 8 0 | Do. | |
| | V | Failed rabi crops and grasses | 0 8 0 | 0 4 0 | Do. | |
| | | OCCUPIER'S RATE. | | | | |
| | | Lahore District. | | | | |
| | Irrigation Branch Notification No. 1503 L., dated 18th April 1900. | I | Rice, gardens and pepper | 3 4 0 | 1 10 0 | Acre. |
| | | II | Cotton, sugarcane, melons, til and hemp | 2 4 0 | 1 2 0 | Do. |
| | | III | All other kharif crops | 1 4 0 | 0 10 0 | Do. |
| IV | | All matured rabi crops, plantations and vegetables. | 1 0 0 | 0 8 0 | Do. | |
| V | | Failed rabi crops and grasses | 0 8 0 | 0 4 0 | Do. | |
| | | SIDHNAI CANALS. | | | | |
| | | WATER-RATE. | | | | |
| | | Kabirwala and Multan Tahsils. | Rs. A. P. | | | |
| Punjab Civil (Revenue) Department letter No. 209, dated 11th December 1899. | | I | Rice, fruits and vegetables, pepper, cotton, til, sugarcane, wheat and tobacco | 3 5 0 | | |
| | | II | Other kharif crops | 2 6 0 | | |
| | III | Other rabi crops | 2 2 0 | | | |
| | | NOTE.—"Lift" rates to be half the "Flow" rates. | | | | |
| | | LOWER SUTLEJ INUNDATION CANALS. | | | | |
| | | OCCUPIER'S RATE. | | | | |
| | | Mailsi Canals and Branches; Muhammadwah-Sardarwah and Branches; Bahawalwah, Lodhran and Branches. | | | | |
| | Irrigation Branch Notification No. 53 R. L., dated 14th February 1903. | I | Rice, gardens and pepper | 2 4 0 | 1 11 0 | Acre of matured crop. |
| | | II | Cotton, sugarcane and, till | 1 12 0 | 1 5 0 | Ditto. |
| | | III | Other kharif crops | 1 8 0 | 1 2 0 | Ditto. |
| IV | | Rabi crops | 0 14 0 | 0 10 0 | Ditto. | |
| | | NOTE.—Irrigation on grass land may be assessed at half rabi rates at the discretion of the Deputy Commissioner. | | | | |

**STATEMENT SHOWING OCCUPIER'S RATE IN FORCE ON THE CANALS IN THE
PUNJAB DURING THE YEAR 1916-17—CONTINUED.**

| Authority. | Class. | Nature of crops. | RATE PER ACRE. | | Por. |
|---|--------|--|----------------|-----------|------------------------|
| | | | Flw. | Lift. | |
| | | CHENAB INUNDATION CANALS, | Rs. A. P. | Rs. A. P. | |
| | | OCCUPIER'S RATE. | | | |
| | | <i>Gajwālotto, Sikandarabad-Sikandarwāl and Bilochanwāl Canals.</i> | | | |
| Irrigation Branch Notification No. 2188 I., dated 9th November 1899. | I | Rice, gardeas and pepper | 2 4 0 | 1 11 0 | Acres of matured crop. |
| | II | Cotton, sugarcane and til | 1 12 0 | 1 5 0 | Ditto. |
| | III | Other kharif crops | 1 8 0 | 1 2 0 | Ditto. |
| | IV | Rabi crops | 0 14 0 | 0 10 0 | Ditto. |
| | | NOTE. —Irrigation on gross lands may be assessed at half rabi rates at the discretion of the Deputy Commissioner. | | | |
| | | <i>Mullitalo, Daurano Langana and Wālī Mahomed Canal.</i> | | | |
| Irrigation Branch Notification No. 01522 I., dated 26th September 1890. | I | Rice, gardeas and pepper | 2 4 0 | 1 11 0 | Acres of matured crop. |
| | II | Cotton, sugarcane and til | 1 12 0 | 1 5 0 | Ditto. |
| | III | Other kharif crops | 1 8 0 | 1 2 0 | Ditto. |
| | IV | Rabi crops | 0 14 0 | 0 10 0 | Ditto. |
| | | NOTE. —Irrigation on gross lands may be assessed at half rabi rates at the discretion of the Deputy Commissioner. | | | |
| | | HAFIWAH CANAL. | | | |
| Irrigation Branch Notification No. 266 R I., dated 16th November 1905. | I | In exercise of the power conferred by Section 19 (1) of the Punjab Minor Canals Act, 1905 (Punjab Act III of 1905), His Honour the Lieutenant-Governor is pleased to direct that for all irrigation from the Hafiwah Canal the following rates shall be levied per acre actually matured, namely:— | | | |
| | | WATER RATE. | | | |
| | I | Rice, gardeas and pepper | 2 4 0 | 1 11 0 | |
| | II | Cotton, sugarcane and til | 1 12 0 | 1 5 0 | |
| | III | Other kharif crops | 1 8 0 | 1 2 0 | |
| | IV | Rabi crops | 0 14 0 | 0 10 0 | |
| | | Provided that on all irrigation, within the original grant of land made in the year 1880 to the late Ghulam Kadir Khan, of lands, the proprietary right in which is or may hereafter become vested— | | | |
| | | (a) in the case of lineal descendants of the said Ghulam Kadir Khan; or | | | |
| | | (b) in Mian Muhammad Khan or Hafez Muhammad Afzal Khan, the nephews of the said Ghulam Kadir Khan or their lineal descendants; | | | |
| | | the rate per acre actually matured whether in the kharif or rabi shall be limited to the following rates, namely:— | | | |
| | | Rs. A. P. | | | |
| | | Flw 0 12 0 <i>per acre.</i> | | | |
| | | Lift 0 9 0 " | | | |

**STATEMENT SHOWING OCCUPIER'S RATE IN FORCE ON THE CANALS IN THE
PUNJAB DURING THE YEAR 1916-17—CONCLUDED.**

| Authority. | Class. | Nature of crops. | RATE PER ACRE. | | Per |
|---|--------|---|-----------------------|-----------|--|
| | | | Flow. | Lift. | |
| | | MUZAFFARGARH INUNDATION CANALS—CONCLUDED. | Rs. A. P. | Rs. A. P. | |
| | | OCCUPIER'S RATE—concluded. | | | |
| | | <i>Indus Canals.</i> | | | |
| Irrigation Branch Notification No. 562 R. I., dated 7th July 1903, and No. 100 R. I., dated 2nd February 1917. | I | Rice, gardens and pepper ... | 2 0 0 | 1 0 0 | Acres of matured crop. |
| | II | Cotton, sugarcane and indigo ... | 1 0 0 | 0 8 0 | Ditto. |
| | III | Other kharif crops ... | 0 12 0 | 0 6 0 | Ditto. |
| | IV | Rabi crops ... | 0 8 0 | 0 4 0 | Ditto. |
| Irrigation Branch Notification No. 434 R. I., dated 4th May 1907. | V | Grass lands ... | 0 4 0 | 0 2 0 | Ditto. |
| | | <i>NOTE.—The rate for grass lands to be assessed at the discretion of the Deputy Commissioner</i> | | | |
| | | GHAGGAR INUNDATION CANALS (BRITISH). | | | |
| | | OCCUPIER'S RATE. | | | |
| Irrigation Branch Notification No. 318 R. I., dated 27th November 1903. | I | Sugarcane ... | 8 6 0 | 4 4 0 | Acres matured per crop. |
| | II | Rice and water-mills ... | 0 0 0 | 3 0 0 | Ditto. |
| | III | All other crops ... | 2 8 0 | 1 4 0 | Ditto. |
| | | <i>Proviso.—Provided that no occupiers' rates shall be levied in respect of any land for the time being assessed to fluctuating land revenue.</i> | | | |
| | | DELHI AND GURGAON WORKS. | <i>Rate per acre.</i> | | |
| | | OCCUPIER'S RATE. | Rs. A. P. | | |
| Irrigation Branch Notification No. 553 R. I., dated 6th April 1898. | ... | All crops ... | 0 6 4½ | | Acres. |
| | ... | Grass ... | 0 3 3½ | | Do. |
| | | <i>NOTE.—This schedule is the same as that published in Notification No. 623 R. I., dated 8th December 1873, which is hereby superseded.</i> | | | |
| | | SCHEDULE OF RATES FOR SUPPLY OF WATER FOR PURPOSES OTHER THAN IRRIGATION. | | | |
| | | WESTERN JUMNA CANAL, UPPER RABI DOAB CANAL, MILDIND CANAL, LOWER CHENAB CANAL, UPPER JHELUM CANAL, LOWER JHELUM CANAL, UPPER CHENAB CANAL, LOWER RABI DOAB CANAL, UPPER SUTLEJ CANAL, LOWER SUTLEJ AND PABH CANALS, SINDHAI AND FLEETARY CANALS, LOWER SUTLEJ AND CHIND CANAL, INDER CANAL, MUTAFARGARH CANAL, SHANBER CANAL. | | | |
| Irrigation Branch Notifications Nos. 651 R. I., dated 8th April 1894, 276 R. I., dated 10th December 1902, 540 R. I., dated 22nd April 1913, 6103 R. I., dated 25th June 1918, and 6218 R. I., dated 12th September 1910. | ... | Brick-making and pier-wall building ... | 0 3 0 | | 100 cubic feet. |
| | ... | Laying concrete and brick or stone masonry ... | 0 2 0 | | Ditto. |
| | ... | Metalling roads ... | 10 0 0 | | Mile. |
| | ... | Water supplied in bulk ... | 1 0 0 | | 2,500 cubic feet. |
| Irrigation Branch Notification No. 325 R. I., dated 29th October 1906. | ... | Watering roadside or avenue trees ... | 2 8 0 | | Canal mile of 5,000 feet, for kharif crop. |
| | ... | | 5 0 0 | | Canal mile of 5,000 feet for rabi crop. |
| Irrigation Branch Notification No. 10237 R. I., dated 23rd September 1911. | ... | <i>Proviso.—Except within the limits of Civil Stations, Cantonnments and Municipalities no charge shall be made for water used for the manufacture of bricks and subsequently burnt in a kiln or for pier wall building, if taken from a water-course or tank lawfully supplied from a canal and if such bricks or walls are for buildings owned by cultivators having a share in the water-course.</i> | | | |

PUNJAB PROVINCE.

IRRIGATION BRANCH

ADMINISTRATIVE ACCOUNTS

FOR THE YEAR

1916-17

No. Irr. 15-4-

Dated _____ 1917.

Copy forwarded to _____

J. C. MITRA,
Accountant-General, Punjab.

Mohd. I. Am Press, Lahore.

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|---|----|
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ADMINISTRATIVE ACCOUNTS

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|--|---------------------------------|-------------------|--------------|--------------------------------------|-------------------|-----------|-----------------|
| | Direct charges. | Indirect charges. | Total. | During 1916-17. | | | To end of |
| | | | | Direct charges. | Indirect charges. | Total. | Direct charges. |
| PRODUCTIVE WORKS. | | | | | | | |
| Canals in Operation. | | | | | | | |
| Imperial. | | | | | | | |
| Western Jumna Canal | 1,66,50,721 | 8,10,210 | 1,74,70,940 | 1,180 | 31 | 1,220 | 1,68,82,530 |
| Upper Bari Doab Canal | 2,08,71,907 | 7,31,773 | 2,16,06,680 | —30,164 | —1,935 | —35,130 | 2,11,00,838 |
| Sirhind Canal | 2,12,02,710 | 12,12,185 | 2,51,14,022 | 36,649 | —294 | 36,255 | 2,13,81,660 |
| Lower Chenab Canal | 3,18,68,000 | 7,49,105 | 3,26,08,065 | 6,10,021 | 12,217 | 5,59,238 | 3,16,78,920 |
| Upper Sutlej Inundation Canals including Lower Sohag and Para. | 16,05,078 | 1,01,011 | 17,07,019 | 1,351 | 14 | 1,405 | 17,18,805 |
| Siddinal Canals | 12,17,714 | 40,225 | 12,67,939 | 4,521 | 8 | 4,529 | 12,95,265 |
| Lower Jhelum Canal | 1,63,95,782 | 5,65,230 | 1,89,63,065 | —33,191 | 600 | —32,591 | 1,57,43,447 |
| Indus Inundation Canals | 28,37,225 | 77,064 | 29,14,290 | 8,616 | 429 | 9,015 | 29,01,976 |
| TOTAL IMPERIAL | 11,77,83,030 | 42,89,522 | 12,20,72,852 | 7,74,999 | 8,020 | 5,43,019 | 11,54,03,947 |
| Contribution. | | | | | | | |
| Western Jumna Canal | 11,70,475 | .. | 11,60,478 | .. | .. | .. | 11,60,478 |
| Sirhind Canal | 1,43,18,870 | .. | 1,43,18,870 | 15,241 | 103 | 15,357 | 1,43,17,289 |
| TOTAL CONTRIBUTION | 1,54,79,345 | .. | 1,54,79,345 | 15,241 | 103 | 15,357 | 1,54,77,767 |
| TOTAL CANALS IN OPERATION, IMPERIAL | 11,77,83,030 | 42,89,522 | 12,20,72,852 | 5,31,909 | 8,020 | 5,13,910 | 11,54,01,947 |
| Do. CONTRIBUTION | 1,54,79,345 | .. | 1,54,79,345 | 15,241 | 103 | 15,357 | 1,54,77,767 |
| Canals under construction. | | | | | | | |
| Upper Chenab Canal | 3,61,00,583 | 12,25,411 | 3,65,32,021 | 7,37,131 | 1,03,457 | 8,10,590 | 3,47,91,637 |
| Lower Bari Doab Canal | 2,13,09,016 | 6,69,462 | 2,20,28,492 | 7,53,309 | 38,962 | 7,92,271 | 2,14,20,273 |
| Upper Jhelum Canal | 4,40,65,252 | 10,56,277 | 4,51,21,559 | 14,30,288 | 58,540 | 14,88,828 | 4,50,11,584 |
| TOTAL CANALS UNDER CONSTRUCTION | 10,07,41,805 | 29,10,190 | 10,36,51,987 | 29,20,731 | 2,00,059 | 31,21,690 | 9,87,03,404 |
| GRAND TOTAL CANALS IN OPERATION AND UNDER CONSTRUCTION. | 21,85,1,163 | 72,30,003 | 22,57,51,534 | 31,55,730 | 2,08,070 | 30,64,700 | 21,41,07,441 |
| | 1,54,79,348 | .. | 1,54,79,348 | 15,284 | 103 | 15,357 | 1,54,77,767 |

(a).—The seeming excess over estimate is due to suspense balances.
(b).—Excludes recoveries made by Native States and credited.
(c).—Excludes share of Accounts Establishment commencing from

LAHORE :

The 31st August 1917.

DEPARTMENT.

PUNJAB PROVINCE.

FOR THE YEAR 1916-17.

Minor Works, the Capital outlay thereon, the Revenue derived therefrom, the working expenses, of 1916-17.

| DURING 1916-17. | | | | | | WORKING EXPENSES AND MAINTENANCE DURING 1916-17, INCLUSIVE OF INDIRECT CHARGES Nos. 3 AND 5, | | | NET RESULT, INCLUDING INTEREST, DIFFERENCE BETWEEN REVENUE AND WORKING EXPENSES. | | | | Simple Interest during 1916-17. | NET RESULTS, INCLUDING INTEREST. | | | |
|----------------------------------|---|----------|----------------------------------|---|-----------|--|-------------------|----------|--|-------------------------------|-------------------|------------------------|---------------------------------|----------------------------------|-------------------------------|--------------------|------------------------|
| Collected with Land Revenue. | | | Total. | | | Direct charges | Indirect charges. | Total | Excess revenue (surplus). | Excess expenditure (deficit). | Rate per cent | | | Excess revenue (surplus) | Excess expenditure (deficit). | Rate per cent. | |
| Actual transactions of the year. | Adjustment on account of previous year. | Total. | Actual transactions of the year. | Adjustment on account of previous year. | Total. | | | | | | Of excess revenue | Of excess expenditure. | | | | Of excess revenue. | Of excess expenditure. |
| Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | | Rs. | Rs. | ... | ... |
| 34,672 | .. | 34,672 | 1,15,018 | .. | 1,15,018 | 43,707 | 3,468 | 47,175 | 67,843 | .. | 31.42 | .. | | | | | |
| .. | .. | .. | 21,360 | .. | 21,850 | 27,818 | 2,002 | 30,480 | .. | 8,630 | .. | 2.20 | | | | | |
| 34,672 | .. | 34,672 | 1,36,808 | .. | 1,36,808 | 71,525 | 6,130 | 77,653 | 67,843 | 8,630 | 10.00 | .. | | | | | |
| .. | .. | .. | .. | .. | .. | 3,105 | .. | 3,105 | .. | 3,105 | .. | 1.00 | | | | | |
| 3,05,700 | .. | 3,05,700 | 6,26,914 | .. | 6,26,914 | 2,20,852 | 13,081 | 2,33,933 | 3,87,001 | | | | | | | | |
| 2,46,795 | .. | 2,46,795 | 4,44,042 | .. | 4,44,042 | 1,49,443 | 6,566 | 1,56,009 | 2,88,033 | | | | | | | | |
| 4,16,619 | .. | 4,16,619 | 7,63,047 | .. | 7,63,047 | 3,34,520 | 18,956 | 3,53,476 | 4,02,472 | | | | | | | | |
| 6,69,114 | .. | 6,69,114 | 18,24,903 | .. | 18,24,903 | 7,10,816 | 36,582 | 7,47,397 | 10,77,508 | | | | | | | | |
| 12,973 | .. | 12,973 | 45,465 | .. | 45,465 | 44,976 | 2,633 | 47,609 | .. | 2,144 | | | | | | | |
| 3,222 | .. | 3,222 | 3,222 | .. | 3,222 | 2,109 | 295 | 2,404 | 818 | .. | | | | | | | |
| 16,195 | .. | 16,195 | 48,687 | .. | 48,687 | 47,085 | 2,928 | 50,013 | 818 | 2,144 | | | | | | | |

J. C. MITRA,

Accountant-General, Punjab.

| HEADS OF ACCOUNT. | DIRECT CHARGES. | | | | | | | | | Cost of construction as now estimated (Construction Estimate closed on 31st March 1893) | Expenditure against closed Estimates. |
|------------------------------------|-----------------|----------|-----------|---------------|----------|----------|-----------|----------|-----------|---|---------------------------------------|
| | IMPERIAL. | | | CONTRIBUTION. | | | TOTAL. | | | | |
| | Previous. | 1910-17. | Total. | Previous. | 1910-17. | Total. | Previous. | 1910-17. | Total. | | |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | | |
| I.—WORKS. | | | | | | | | | | | |
| 1. HEAD WORKS— | | | | | | | | | | | |
| B.—Land | 4,710 | .. | 4,710 | .. | .. | .. | 4,710 | .. | 4,710 | | |
| C.—Works | 4,19,440 | .. | 4,19,440 | 5,329 | .. | 5,329 | 4,24,769 | .. | 4,24,769 | | |
| K.—Buildings .. | 42,311 | .. | 42,311 | .. | .. | .. | 42,311 | .. | 42,311 | | |
| O.—Miscellaneous .. | 13,539 | .. | 13,539 | .. | .. | .. | 13,539 | .. | 13,539 | | |
| P.—Maintenance .. | 21,839 | .. | 21,839 | .. | .. | .. | 21,839 | .. | 21,839 | | |
| TOTAL .. | 6,04,829 | .. | 6,04,829 | 5,329 | .. | 5,329 | 6,10,167 | .. | 6,10,167 | | |
| MAIN CANAL AND BRANCHES | | | | | | | | | | | |
| A.—Preliminary Expenses | 50,808 | .. | 50,808 | 4,580 | .. | 4,580 | 55,388 | .. | 55,388 | | |
| B.—Land | 2,58,542 | .. | 2,58,542 | 22,259 | .. | 22,259 | 2,80,801 | .. | 2,80,801 | | |
| D.—Regulators .. | 2,11,030 | .. | 2,11,030 | 25,071 | .. | 25,071 | 2,36,101 | .. | 2,36,101 | | |
| E.—Falls and Weirs .. | 3,61,190 | .. | 3,61,190 | 42,008 | .. | 42,008 | 4,03,198 | .. | 4,03,198 | | |
| F.—River and Hill Torrent Works. | 2,749 | .. | 2,749 | 1,031 | .. | 1,031 | 3,800 | .. | 3,800 | | |
| F. (1)—Other Cross Drainage Works. | 2,23,617 | .. | 2,23,617 | 41,127 | .. | 41,127 | 2,64,744 | .. | 2,64,744 | | |
| G.—Bridges | 8,23,308 | .. | 8,23,308 | 51,270 | .. | 51,270 | 8,74,578 | .. | 8,74,578 | | |
| H.—Escapes | 3,40,442 | .. | 3,40,442 | 43,119 | .. | 43,119 | 3,83,562 | .. | 3,83,562 | | |
| I.—Navigation Works .. | 13,87,990 | .. | 13,87,990 | 20,862 | .. | 20,862 | 14,08,852 | .. | 14,08,852 | | |
| J.—Mills | 55,117 | .. | 55,117 | 3,832 | .. | 3,832 | 58,950 | .. | 58,950 | | |
| K.—Buildings | 6,69,032 | 1,021 | 6,70,053 | 45,175 | .. | 45,175 | 7,15,107 | 1,021 | 7,16,128 | | |
| L.—Earthwork | 19,01,367 | .. | 19,01,367 | 1,90,004 | .. | 1,90,004 | 20,91,371 | .. | 20,91,371 | | |
| M.—Plantations | 19,032 | .. | 19,032 | 4,050 | .. | 4,050 | 23,082 | .. | 23,082 | | |
| O.—Miscellaneous .. | 51,239 | .. | 51,239 | 3,768 | .. | 3,768 | 55,007 | .. | 55,007 | | |
| P.—Maintenance .. | 1,58,861 | .. | 1,58,861 | 18,144 | .. | 18,144 | 1,77,005 | .. | 1,77,005 | | |
| TOTAL .. | 65,54,113 | 1,021 | 65,55,134 | 5,33,793 | .. | 5,33,793 | 70,87,906 | 1,021 | 70,88,927 | | |
| 3.—DISTRIBUTABLES— | | | | | | | | | | | |
| A.—Preliminary Expenses | 65,053 | .. | 65,053 | 12,972 | .. | 12,972 | 78,025 | .. | 78,025 | | |
| B.—Land | 3,11,012 | —114 | 3,10,898 | 6,946 | .. | 6,946 | 3,17,844 | —114 | 3,17,730 | | |
| C.—Works | 11,87,716 | .. | 11,87,716 | 1,30,924 | .. | 1,30,924 | 13,18,640 | .. | 13,18,640 | | |
| L.—Earthwork | 14,05,257 | .. | 14,05,257 | 1,65,612 | .. | 1,65,612 | 15,70,869 | .. | 15,70,869 | | |
| O.—Miscellaneous .. | 3,88,830 | .. | 3,88,830 | 20,350 | .. | 20,350 | 4,09,180 | .. | 4,09,180 | | |
| P.—Maintenance .. | 54,924 | .. | 54,924 | 12,583 | .. | 12,583 | 67,507 | .. | 67,507 | | |
| TOTAL .. | 31,12,846 | —114 | 31,12,732 | 3,68,403 | .. | 3,68,403 | 37,71,245 | —114 | 37,71,131 | | |

ACCOUNTANT-GENERAL,
FOR THE YEAR 1916-17.
Project.
AND TO END OF 1916-17.

PUNJAB PROVINCE.

| HEADS OF ACCOUNT. | DIRECT CHARGES. | | | | | | | | | Cost of Construction as now estimated (Consolidated Estimate closed on 31st March 1903). | Expenditure against closed Estimates. |
|--|--|--|--|--|---|---|--|---|--|--|---|
| | IMPERIAL. | | | CONTRIBUTION. | | | TOTAL. | | | | |
| | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. | | |
| 4. DRAINAGE AND PROTECTIVE WORKS— A.—Preliminary Expenses .. B.—Land .. C.—Works .. L.—Earthwork .. O.—Miscellaneous .. Total .. TOTAL I.—WORKS .. Add expenditure on general work under I. 1916-17 .. Total .. | Rs. 20,301 59,525 2,00,420 4,27,174 22,617 7,23,030 1,12,97,170 10,24,122 1,31,37,982 | Rs. 997 .. 997 | Rs. 20,301 59,525 2,00,420 4,27,174 22,617 7,23,030 1,12,10,765 10,24,122 1,31,38,982 | Rs. 1 3,117 .. 3,118 1,66,784 .. 1,66,784 | Rs. | Rs. 1 3,117 .. 3,118 1,66,784 .. 1,66,784 | Rs. 20,302 59,525 2,00,420 4,30,291 22,617 7,31,177 1,21,10,550 10,24,122 1,31,38,672 | Rs. 997 .. 997 | Rs. 20,303 59,525 2,00,420 4,30,291 22,617 7,31,177 1,21,11,407 10,24,122 1,31,38,672 | Rs. | Rs. |
| II.—ESTABLISHMENT A. DIRECTION (a) .. b. EXECUTIVE .. 8. SPECIAL QUARTY .. 9. SPECIAL FIELD ESTABLISHMENT .. 10. STAFF AND OFFICIAL ALLOWANCES .. Total .. Add expenditure on general work under II. 1916-17 .. Total .. | Rs. 6,60,350 24,61,401 1,31,572 21,53,323 1,50,000 22,03,323 | Rs. 40 170 210 .. 210 | Rs. 6,60,390 24,61,571 1,31,572 21,53,533 1,50,000 22,03,533 | Rs. 42,525 1,57,572 6,000 1,64,097 .. 1,64,097 | Rs. | Rs. 42,525 1,57,572 6,000 1,64,097 .. 1,64,097 | Rs. 6,62,076 25,58,915 1,37,572 22,56,563 .. 22,56,563 | Rs. 40 170 210 .. 210 | Rs. 6,62,116 25,59,085 1,37,572 22,56,773 .. 22,56,773 | Rs. | Rs. |
| III.—TOOLS AND PLANT 1. Implements .. 2. Road and Railway .. 3. Tools .. 4. Requisition .. 5. Camp .. 6. Fuel .. 7. Office .. 8. Repairs .. 9. Repairs .. Total .. | Rs. 1,500 2,500 1,200 2,19,700 | Rs. 210 | Rs. 1,500 2,500 1,200 2,19,910 | Rs. 27,700 | Rs. | Rs. 27,700 | Rs. 2,230 2,41,610 | Rs. 16 | Rs. 2,230 2,41,811 | Rs. | Rs. 2,41,811 |
| IV.—SUPPLY ACCOUNT. 14. STOCK .. 15. PRICES PURCHASED .. 15a. PRICES PAID .. 16. MISCELLANEOUS .. Total .. GRAND TOTAL .. V.—LESS RECEIPTS ON CAPITAL ACCOUNT. Net Total .. APPORTIONMENT. 19.—IRRIGATION WORKS .. | Rs. 2,13,700 —100 2,13,700 1,58,93,423 11,950 1,58,82,473 | Rs. .. —200 1,007 .. 1,007 | Rs. 2,13,500 —300 2,13,200 1,58,93,423 11,950 1,58,82,473 | Rs. | Rs. | Rs. 2,13,500 —300 2,13,200 1,58,93,423 11,950 1,58,82,473 | Rs. 2,13,700 —100 2,13,700 1,58,93,423 11,950 1,58,82,473 | Rs. .. —200 1,007 .. 1,007 | Rs. 2,13,600 —300 2,13,300 1,58,93,423 11,950 1,58,82,473 | Rs. | Rs. |

Share of accounts excluded under Imperial from 1912-13.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Western Jumna Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| RECEIPTS. | IMPERIAL. | | | CONTRIBUTION. | | | TOTAL. | | |
|--|--------------|-----------|--------------|---------------|----------|--------|--------------|-----------|--------------|
| | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| Occupiers' rates .. | .. | 27,79,417 | | .. | .. | | .. | | |
| Owners' rate on irrigated land. | .. | .. | | .. | .. | | .. | | |
| Sales of water .. | .. | 10,864 | | .. | 168 | | .. | | |
| Supply of towns.. | .. | .. | | .. | .. | | .. | | |
| Receipts from Plantations. | .. | 22,859 | | .. | 332 | | .. | | |
| Receipts from other Canal produce. | .. | 720 | | .. | 1 | | .. | | |
| Water-power .. | .. | 3,320 | | .. | 273 | | .. | | |
| Navigation Receipts. | .. | 73,580 | | .. | .. | | .. | | |
| Rent of Buildings .. | .. | 7,260 | | .. | 366 | | .. | | |
| Fines .. | .. | 2,310 | | .. | 130 | | .. | | |
| Miscellaneous and other Receipts. | .. | 35,200 | | .. | 50 | | .. | | |
| Total .. | 0,70,11,681 | 29,44,574 | 0,99,56,165 | 33,004 | 1,336 | 34,340 | 0,70,14,585 | 23,45,910 | 9,99,90,495 |
| Share of Land Revenue collected in the Civil Department. | 1,87,99,500 | 2,08,015 | 1,00,07,515 | .. | .. | | 1,87,00,500 | 2,08,015 | 1,90,07,515 |
| Interest on sale proceeds of waste lands benefited. | 1,305 | 295 | 1,600 | .. | .. | | 1,305 | 295 | 1,600 |
| Total .. | 1,88,00,895 | 2,08,310 | 1,90,09,205 | .. | .. | | 1,88,00,895 | 2,08,310 | 1,90,09,205 |
| TOTAL RECEIPTS | 11,58,12,476 | 31,52,884 | 11,89,65,360 | 33,004 | 1,336 | 34,340 | 11,68,45,486 | 31,51,220 | 11,89,99,700 |

OFFICE OF ACCOUNTANT GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Western Jumna Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| CHARGES. | IMPERIAL. | | | CONTRIBUTION. | | | TOTAL. | | |
|------------------------------------|-------------|----------|-------------|---------------|----------|----------|-------------|----------|-------------|
| | Provincial. | 1916-17. | Total. | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| (I.A.)—EXTENSION AND IMPROVEMENTS. | | | | | | | | | |
| (1).—HEAD WORKS | 1,90,092 | 7,000 | 2,00,100 | 14,300 | 607 | 14,916 | 2,13,401 | 7,705 | 2,21,106 |
| (2).—MAIN CANAL AND BRANCHES. | 13,41,599 | 17,426 | 13,60,015 | 2,34,326 | 17,523 | 2,51,849 | 15,75,925 | 44,040 | 16,20,874 |
| (3).—DISTRIBUTARIES | 6,65,504 | 23,421 | 7,38,925 | 56,513 | .. | 56,513 | 7,22,017 | 73,424 | 7,95,441 |
| (4).—DRAINAGE AND PROTECTIVE WORKS | 68,860 | 3,231 | 72,091 | 2,223 | 205 | 2,431 | 71,083 | 3,442 | 74,525 |
| TOTAL I. A. .. | 22,75,055 | 1,11,182 | 23,96,237 | 3,67,371 | 16,335 | 3,25,709 | 28,82,426 | 1,20,520 | 27,11,946 |
| (I.B.)—MAINTENANCE AND REPAIRS | | | | | | | | | |
| (1).—HEAD WORKS | 18,51,768 | 20,015 | 18,70,783 | 53,254 | 2,482 | 55,736 | 19,35,022 | 31,407 | 19,66,519 |
| (2).—MAIN CANAL AND BRANCHES. | 74,65,951 | 3,25,260 | 77,94,210 | 4,41,155 | 21,675 | 4,62,830 | 70,10,136 | 3,48,351 | 82,58,500 |
| (3).—DISTRIBUTARIES | 41,43,516 | 1,51,152 | 43,24,668 | 1,71,219 | .. | 1,71,219 | 43,15,035 | 1,51,152 | 44,66,187 |
| (4).—DRAINAGE WORKS | 5,28,234 | 49,512 | 5,78,746 | 19,813 | 1,692 | 20,505 | 5,47,747 | 51,504 | 5,99,251 |
| TOTAL I. B. .. | 1,39,83,399 | 5,55,265 | 1,45,78,664 | 7,14,641 | 26,249 | 7,39,790 | 1,47,07,940 | 6,10,517 | 1,53,18,457 |
| (I.C.)—COMPENSATION. | 1,02,953 | 6,827 | 1,09,780 | 2,601 | 485 | 2,457 | 1,04,059 | 7,313 | 1,12,272 |
| (II.)—ESTABLISHMENT. | | | | | | | | | |
| (5).—DIRECTION AND ACCOUNT (c) | 21,10,359 | 55,310 | 21,66,679 | 57,372 | 5,109 | 62,571 | 21,07,741 | 61,500 | 22,59,250 |
| (6).—EXECUTIVE ESTABLISHMENT | 51,21,572 | 2,07,703 | 53,49,275 | 3,45,580 | 10,313 | 3,55,893 | 54,70,752 | 3,08,018 | 57,78,769 |
| (7).—MEDICAL DO. | | (b) | | | | | | | |
| (7A).—REVENUE DO | 51,71,574 | 2,05,674 | 53,77,248 | 1,38,590 | 70 | 1,38,660 | 53,10,170 | 2,05,744 | 55,15,914 |
| (7B).—NAVIGATION ESTABLISHMENT. | 17,435 | 252 | 17,687 | .. | .. | .. | 17,435 | 252 | 17,687 |
| (7C).—PLANTATION ESTABLISHMENT. | 700 | .. | 700 | .. | .. | .. | 700 | .. | 700 |
| (7D).—LEAVE AND PENSION ALLOWANCE. | .. | .. | .. | 80,450 | 2,181 | 82,631 | 80,450 | 2,181 | 82,631 |
| (7E).—MILLS AND MACHINERY. | 1,123 | .. | 1,123 | .. | .. | .. | 1,123 | .. | 1,123 |
| TOTAL .. | 1,64,23,163 | 5,59,239 | 1,69,83,102 | 6,55,205 | 17,763 | 6,73,061 | 1,70,78,461 | 5,77,702 | 1,76,56,163 |

(a). Includes Rs. 16,203 on account of seigniorage during the year. Up to date Rs. 1,85,087.

(b). " Rs. 75,781 on account of fees for collection of Revenue.

(c). " Share of accounts excluded under Imperial from 1912-13.

(d). Rs. 6,19,270 more would have been earned had not owners' rates on certain lands irrigated been remitted in favour of Revenue Waivees.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Western Jumna Canal Project.

No. 2.—REVENUE ACCOUNT FOR AND TO END OF 1916-17.—concluded.

| CHARGES. | IMPERIAL. | | | CONTRIBUTION. | | | TOTAL. | | |
|---|--------------|-----------|--------------|---------------|----------|------------|--------------|-----------|--------------|
| | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| (III).—TOOLS AND PLANT. | | | | | | | | | |
| (1).—SCIENTIFIC INSTRUMENTS AND DRAWING MATERIAL. | 1,067 | 5 | 1,840 | ... | ... | ... | 1,067 | 582 | 1,549 |
| (2).—PLANTS AND MACHINERY. | 3,723 | 412 | 4,135 | ... | ... | ... | 3,723 | 412 | 4,135 |
| (3).—TOOLS ... | 1,705 | 183 | 1,888 | ... | ... | ... | 1,705 | 183 | 1,888 |
| (4).—NAVIGATION PLANTS. | 5,568 | 681 | 6,249 | ... | ... | ... | 5,568 | 681 | 6,249 |
| (5).—CAMP EQUIP- AGE | 45 | 16 | 61 | ... | ... | ... | 45 | 16 | 61 |
| (6).—LIVE STOCK | .. | ... | ... | ... | ... | ... | ... | .. | ... |
| (7).—OFFICE FURNITURE. | 1,765 | 332 | 2,097 | ... | ... | ... | 1,765 | 332 | 2,097 |
| (12).—MISCELLANEOUS. | 2,83,713 | —165 | 2,83,548 | 22,640 | 574 | 23,214 | 3,06,353 | 409 | 3,06,762 |
| (8).—REPAIRS AND CARRIAGES ... | 2,28,111 | 12,148 | 2,40,259 | 522 | ... | 522 | 2,28,633 | 12,148 | 2,40,781 |
| TOTAL ... | 5,25,097 | 14,180 | 5,39,277 | 23,162 | 574 | 23,736 | 5,48,859 | 14,763 | 5,63,622 |
| (IV).—REFUNDS OF REVENUE. | 3,70,244 | 1,134 | 3,71,378 | ... | .. | .. | 3,70,244 | 1,134 | 3,71,378 |
| (V).—PROFIT AND LOSS. | 1,295 | ... | 1,295 | ... | ... | ... | 1,295 | ... | 1,295 |
| General work to end of 1864-65. | 48,92,523 | ... | 48,92,523 | ... | ... | ... | 48,92,523 | ... | 48,92,523 |
| TOTAL .. | 3,85,84,334 | 12,78,530 | 3,98,62,863 | 17,02,373 | 62,410 | 17,64,783 | 4,02,86,707 | 13,40,949 | 4,16,27,656 |
| Indirect Charges debitable to Revenue Account as per Account No. 5. | 27,01,150 | 78,616 | 27,79,766 | ... | .. | ... | 27,01,150 | 78,616 | 27,79,766 |
| TOTAL CHARGES | 4,12,85,484 | 13,57,146 | 4,26,42,630 | 17,02,373 | 62,410 | 17,64,783 | 4,29,87,867 | 14,10,565 | 4,44,07,422 |
| Balance, Not Revenue. | 7,45,26,002 | 17,95,729 | 7,63,21,731 | —16,69,359 | —61,074 | —17,30,433 | 7,28,57,623 | 17,34,653 | 7,45,92,276 |
| GRAND TOTAL | 11,58,11,476 | 31,52,874 | 11,89,64,350 | 33,004 | 1,336 | 34,340 | 11,58,45,480 | 31,54,220 | 11,89,99,700 |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Western Jumna Canal Project.

No. 4.—INTEREST ACCOUNT FOR AND TO END OF 1916-17.

| | Amount | | Amount. |
|--|-------------|--|-------------|
| | Rs. | | Rs. |
| Total Interest charged to end of 1915-16 ... | ... | Net Revenue realized to end of 1915-16 ... | ... |
| Do. for the year 1916-17 ... | 2,39,02,500 | Do. during 1916-17 ... | 7,45,25,892 |
| Total outlay to end of 31st March 1917 = Rs. 1,88,83,536 | ... | | 17,95,723 |
| Less half outlay during 1916-17 = Rs. 595 | ... | | |
| Rs. 1,68,82,941 | ... | | |
| Interest at 8-2064 per cent ... | 5,55,520 | | |
| Total ... | 2,34,59,020 | | |
| Balance Revenue after defraying interest charges ... | 5,28,63,692 | | |
| Total ... | 7,63,22,721 | Total ... | 7,63,22,721 |

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| Particulars | Previous. | 1916-17 | Total. |
|--|-----------|---------|-----------|
| | [Rs. | Rs. | Rs. |
| CAPITAL— | | | |
| Capitalization of abatement of Land Revenue ... | 2,16,561 | ... | 2,16,561 |
| Leave and Pension Allowances { Imperial ... | 5,03,627 | 31 | 5,03,658 |
| { Contribution ... | 20,049 | ... | 20,049 |
| Total ... | 8,39,237 | 31 | 8,39,268 |
| Leave and Pension Allowances debited to Native States treated as direct charge and transferred to account No. 2 of the Canal. | 20,049 | ... | 20,049 |
| Net debitable to Imperial ... | 8,10,188 | 31 | 8,10,219 |
| REVENUE— | | | |
| Capitalization of abatement of Land Revenue ... | 16,367 | 226 | 16,592 |
| Leave and Pension Allowances { Imperial ... | 20,84,788 | 78,391 | 27,63,174 |
| { Contribution ... | 80,450 | 2,181 | 82,631 |
| Total ... | 27,81,600 | 80,797 | 28,62,397 |
| DEBIT— | | | |
| Leave and Pension Allowances debited to Native States treated as direct charge and transferred to account No. 3 of this Canal. | 80,450 | 2,181 | 82,631 |
| Net debitable to Imperial Revenue ... | 27,01,150 | 78,916 | 27,79,766 |

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Western Jumna Canal Project.

No 6—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

| PARTICULARS | CHARGES AGAINST CLOSED SANCTIONS | | | CURRENT SANCTIONS. | | | Total charges to date against old and current sanctions. | REMARKS. |
|--|--|---|-------------|--------------------|--------------------------------|------------------------------|--|----------|
| | Expenditure against Construction Estimate. | Expenditure against Open Canal Sanctions. | Total | Charges to date | Amount of sanctioned Estimate. | Unspent Balance of Estimate. | | |
| IMPERIAL. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| DIRECT CHARGES. | | | | | | | | |
| Works | 1,02,90,277 | 28,44,613 | 1,31,34,890 | | | .. | 1,31,34,890 | |
| Establishment .. | 27,27,223 | 6,01,030 | 33,28,252 | .. | .. | .. | 33,28,252 | |
| Tools and Plant .. | 1,77,785 | 40,265 | 2,18,050 | .. | .. | .. | 2,18,050 | |
| Suspense Balance .. | .. | .. | .. | 2,13,815 | .. | —2,13,815 | 2,13,815 | |
| Total .. | 1,31,95,285 | 34,85,917 | 1,66,81,202 | 2,13,815 | .. | —2,13,815 | 1,68,95,017 | |
| Less Receipts on Capital Account. | 11,201 | 280 | 11,481 | .. | .. | .. | 11,481 | |
| Net Total ... | 1,31,84,084 | 34,85,637 | 1,66,69,721 | 2,13,815 | .. | —2,13,815 | 1,68,83,536 | |
| INDIRECT CHARGES. | | | | | | | | |
| Capitalized abatement of Land Revenue. | 1,53,167 | 63,394 | 2,16,561 | .. | .. | .. | 2,16,561 | |
| Leave and Pension Allowances. | 5,12,094 | 81,664 | 5,93,658 | .. | .. | .. | 5,93,658 | |
| Total .. | 6,65,261 | 1,44,958 | 8,10,219 | .. | .. | .. | 8,10,219 | |
| GRAND TOTAL .. | 1,38,49,345 | 36,30,595 | 1,74,79,940 | 2,13,815 | .. | —2,13,815 | 1,76,93,755 | |
| CONTRIBUTION. | | | | | | | | |
| DIRECT CHARGES. | | | | | | | | |
| Works | 8,34,341 | 66,299 | 9,00,640 | .. | .. | .. | 9,00,640 | |
| Establishment .. | 2,17,498 | 19,014 | 2,36,512 | .. | .. | .. | 2,36,512 | |
| Tools and Plant .. | 22,814 | 654 | 23,468 | .. | .. | .. | 23,468 | |
| Total ... | 10,74,653 | 86,297 | 11,60,950 | .. | .. | .. | 11,60,950 | |
| Less Receipts on Capital Accounts. | 472 | .. | 472 | .. | .. | .. | 472 | |
| Net Total .. | 10,74,181 | 86,297 | 11,60,478 | .. | .. | .. | 11,60,478 | |
| GRAND TOTAL .. | 10,74,181 | 86,297 | 11,60,478 | .. | .. | .. | 11,60,478 | |

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Upper Bari Doab Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNT. | DIRECT CHARGES. | | | Cost of construction as now estimated (Construction Estimate closed on 31st March 1890.) | Expenditure against Closed Estimate. |
|--|-----------------|----------|-------------|--|--------------------------------------|
| | Imperial. | | | | |
| | Previous. | 1916-17. | Total. | | |
| 1.—WORKS. | Rs. | Rs. | Rs. | | |
| 1. HEAD WORKS— | | | | | |
| B.—Land | .. | —80 | —80 | | |
| C.—Works | 8,17,185 | 3,808 | 8,20,993 | | |
| K.—Buildings | 63,031 | 2,927 | 65,958 | | |
| TOTAL | 8,80,219 | 6,149 | 8,86,368 | | |
| 2. MAIN CANAL AND BRANCHES— | | | | | |
| A.—Preliminary Expenses | 8,180 | .. | 8,180 | | |
| B.—Land | 1,44,578 | —908 | 1,43,610 | | |
| D.—Regulators | 3,52,039 | .. | 3,52,039 | | |
| E.—Falls and Weirs | 19,49,484 | .. | 19,49,484 | | |
| F.—River and Hill Torrent Works | 5,39,998 | .. | 5,39,998 | | |
| F. (1).—Other Cross Drainage Works | 1,18,245 | .. | 1,18,245 | | |
| G.—Bridges | 8,52,439 | .. | 8,52,439 | | |
| H.—Escapes | 6,38,733 | .. | 6,38,733 | | |
| I.—Navigation Works | 4,78,588 | .. | 4,78,588 | | |
| J.—Mills | 1,47,530 | .. | 1,47,530 | | |
| K.—Buildings | 10,72,388 | 10,826 | 10,83,164 | | |
| L.—Earthwork | 88,73,189 | 26,854 | 89,00,043 | | |
| M.—Plantations | 95,475 | .. | 95,475 | | |
| O.—Miscellaneous | 5,56,068 | 1,27,398 | 6,83,466 | | |
| P.—Maintenance | 75,872 | .. | 75,872 | | |
| TOTAL | 1,02,33,403 | 1,64,110 | 1,03,97,513 | | |
| 3. DISTRIBUTARIES— | | | | | |
| A.—Preliminary Expenses | 24,333 | .. | 24,333 | | |
| B.—Land | 3,71,861 | —1,898 | 3,69,963 | | |
| C.—Works | 16,28,141 | .. | 16,28,141 | | |
| L.—Earth work | 15,98,384 | .. | 15,98,384 | | |
| O.—Miscellaneous | 3,27,080 | —7,231 | 3,19,849 | | |
| P.—Maintenance | 8,354 | .. | 8,354 | | |
| Add Dinanagar Navigation Channel | 35,776 | .. | 35,776 | | |
| Shahpur Water Courses | 63,427 | .. | 63,427 | | |
| Lahore City Rajbaha | 12,724 | .. | 12,724 | | |
| TOTAL | 41,08,830 | 9,126 | 41,17,956 | | |

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Upper Bari Doab Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNT. | DIRECT CHARGES | | | Cost of construction as now estimated (Construction Estimate closed on 31st March 1890) | Expenditure against Closed Estimates. |
|---|----------------|-----------|-------------|---|---------------------------------------|
| | Imperial. | | | | |
| | Previous— | 1916-17 | Total | | |
| | Rs | Rs | Rs | Rs | Rs. |
| 4.—DRAINAGE AND PROTECTIVE WORKS— | | | | | |
| A.—Preliminary Expenses | 539 | ... | 539 | | |
| B.—Land | 6,519 | ... | 6,519 | | |
| C.—Works | 28,906 | ... | 28,906 | | |
| L.—Earthwork | 95,247 | ... | 95,247 | | |
| O.—Miscellaneous | 1,163 | ... | 1,163 | | |
| TOTAL | 1,33,374 | ... | 1,33,374 | | |
| TOTAL I WORKS. | 1,61,15,756 | 4,51,133 | 1,62,77,009 | 1,65,04,914 | 1,67,30,482 |
| II.—ESTABLISHMENT | | | | | |
| 5. Direction | 8,48,319 | 3 | 8,48,322 | | |
| 6. Executive | 26,44,750 | —35,780 | 26,08,961 | | |
| 7. Medical | 5,465 | ... | 5,465 | | |
| TOTAL | 34,98,534 | —35,786 | 34,62,748 | 34,73,497 | 34,25,290 |
| III.—TOOLS AND PLANT | | | | | |
| Plant and Machinery | 258 | 2,573 | 3,831 | | |
| 4. Navigation Plant | 22 | ... | 22 | | |
| 8. Repairs and Carriage | 2,360 | ... | 2,360 | | |
| Miscellaneous | 9,13,237 | —3,161 | 9,10,086 | | |
| TOTAL | 9,16,877 | 422 | 9,16,299 | 9,13,401 | 8,95,258 |
| IV.—SUSPENSE ACCOUNT | | | | | |
| 14 Stock | 5,42,941 | —80,637 | 4,62,304 | | |
| 15 ^c Stock Purchases | —1,448 | —3,770 | —5,219 | | |
| 15 ^d Stock Sale | 113 | 483 | 596 | | |
| 16 Miscellaneous Advances | 0,152 | —2,595 | 3,556 | | |
| 18 London Stores | 99,403 | —69,403 | ... | | |
| TOTAL | 6,17,160 | —1,55,024 | 4,01,237 | | |
| GRAND TOTAL | 2,11,47,447 | —30,154 | 2,11,17,293 | 2,08,91,882 | 2,06,51,030 |
| V.—Less RECEIPTS ON CAPITAL ACCOUNT. | | | | | |
| NET TOTAL | 16,055 | ... | 16,955 | 19,055 | 16,955 |
| | 2,11,30,492 | —30,154 | 2,11,00,338 | 2,08,74,907 | 2,00,34,076 |
| APPORTIONMENT. | | | | | |
| 49—Irrigation Works | 2,11,30,492 | | | | |

(a). Share of accounts excluded from 1912-13.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Upper Bari Doab Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| RECEIPTS. | IMPERIAL. | | | CHARGES. | IMPERIAL. | | |
|--|--------------|-----------|--------------|---|--------------|-----------|--------------|
| | Previous. | 1916-17. | Total. | | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | (I.A.)—EXTENSIONS AND IMPROVEMENTS. | Rs. | Rs. | Rs. |
| Occupiers' rates .. | 9,60,57,498 | 42,07,119 | 10,02,60,617 | (1.)—HEAD WORKS .. | 3,45,305 | 41,728 | 3,87,123 |
| Owners' rates on irrigated land .. | 8,575 | .. | 8,575 | (2.)—MAIN CANAL AND BRANCHES .. | 14,52,811 | 24,782 | 14,77,593 |
| Sales of water .. | 7,31,818 | 34,684 | 7,66,502 | (3.)—DISTRIBUTARIES .. | 12,57,999 | 33,077 | 12,91,076 |
| Supply of towns ... | 2,593 | 984 | 3,577 | (4.)—DRAINAGE AND PROTECTIVE WORKS. | 1,80,837 | 7,274 | 1,88,111 |
| Receipts from Plantations | 10,46,595 | 28,833 | 10,75,428 | TOTAL I. A. .. | 32,33,042 | 1,06,841 | 33,39,883 |
| Receipts from other Canal produce. | 2,40,714 | 1,736 | 2,42,450 | (I. B.)—MAINTENANCE AND REPAIRS. | | | |
| Water-power .. | 42,97,730 | 1,19,487 | 44,17,217 | (1.)—HEAD WORKS .. | 47,26,213 | 32,937 | 47,59,150 |
| Navigation Receipts .. | 5,477 | .. | 5,477 | (2.)—MAIN CANAL AND BRANCHES .. | 87,85,331 | 2,52,350 | 90,37,681 |
| Rent of Buildings .. | | 7,802 | | (3.)—DISTRIBUTARIES .. | 44,04,540 | 1,68,452 | 45,73,000 |
| Fines | 14,52,639 | 2,182 | 14,54,821 | (4.)—DRAINAGE WORKS .. | 1,12,321 | 14,801 | 1,27,122 |
| Miscellaneous and other Receipts. | | 1,40,520 | | TOTAL I. B. .. | 1,80,28,414 | 4,63,500 | 1,84,91,914 |
| Total .. | 10,38,30,516 | 45,43,416 | 10,83,73,932 | I. C.—COMPENSATION. | 40,322 | .. | 40,322 |
| Share of Land Revenue collected in the Civil Department. | 1,49,00,930 | 6,00,120 | 1,55,01,050 | (II.)—ESTABLISHMENT. | | | |
| Interest on sale proceeds of waste lands benefited. | 7,50,542 | 68,740 | 8,19,282 | (1.)—DIRECTION AND ACCOUNTS .. | 22,65,120 | 64,093 | 23,29,213 |
| TOTAL .. | 1,50,51,378 | 6,68,875 | 1,57,20,253 | (2.)—EXECUTIVE ESTABLISHMENT .. | 82,42,516 | 3,84,509 | 86,27,025 |
| | | | | (7.)—MEDICAL Do. .. | 1,17,940 | 6,403 | 1,24,343 |
| | | | | (7A.)—REVENUE Do. .. | 68,17,687 | 2,99,008 | 71,16,695 |
| | | | | (7C.)—PLANTATION Do. .. | 40,155 | .. | 40,155 |
| | | | | (7D.)—LEAVE AND PENSION ALLOWANCE .. | 62 | .. | 62 |
| | | | | TOTAL .. | 1,74,83,495 | 7,20,073 | 1,82,03,568 |
| | | | | III. TOOLS AND PLANT. | | | |
| | | | | (1.)—SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS .. | 107 | 820 | 927 |
| | | | | (2.)—PLANT MACHINERY .. | 8,142 | 51 | 8,193 |
| | | | | (3.)—TOOLS .. | 1,763 | 827 | 2,590 |
| | | | | (4.)—NAVIGATION PLANT .. | 30 | 713 | 743 |
| | | | | (5.)—CAMP EQUIPAGES .. | 121 | .. | 121 |
| | | | | (6.)—LIVE STOCK .. | 157 | 47 | 204 |
| | | | | (7.)—OFFICE FURNITURE .. | 2,295 | 58 | 2,353 |
| | | | | (8.)—REPAIRS AND CARRIAGE .. | 2,83,300 | 20,684 | 3,03,984 |
| | | | | (9.)—MISCELLANEOUS .. | 3,03,187 | 3,12 | 3,06,304 |
| | | | | TOTAL III TOOLS AND PLANTS. | 6,50,090 | 2,277 | 6,52,367 |
| | | | | (IV.)—REFUNDS OF REVENUE | 1,08,187 | 3,427 | 1,11,614 |
| | | | | (V.)—PROFIT AND LOSS. | 1,073 | .. | 1,073 |
| | | | | TOTAL .. | 3,96,22,908 | 13,21,218 | 4,09,44,126 |
| | | | | Indirect Charges debitable to Revenue Account as per Account No. 5. | 27,56,190 | 1,01,335 | 28,57,525 |
| | | | | TOTAL CHARGES .. | 4,23,79,098 | 14,22,553 | 4,38,01,651 |
| | | | | Balance, Net Revenue .. | 7,71,11,930 | 37,80,738 | 8,08,92,668 |
| | | | | GRAND TOTAL .. | 11,04,01,023 | 52,12,201 | 11,56,13,224 |

(a). Share of Accounts excluded from 1912-13.

(b). Includes Rs. 1,19,016 on account of fees for collection of revenue.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Upper Bari Doab Canal Project.

No. 4—INTEREST ACCOUNT FOR AND TO END OF 1916-17.

| | Amount. | | Amount. |
|---|-------------|---|-------------|
| | Rs. | | Rs. |
| Total interest charges to end of 1915-16 .. | | Net Revenue realized to end of 1916-16 .. | 7,71,11,939 |
| Do. for the year 1916-17 .. | 3,45,75,931 | Do. during 1916-17 .. | 37,59,738 |
| Total outlay to end of March 1917=Rs. 2,11,00,338 | | | |
| Less half outlay during 1916-17= " —15,077 | | | |
| Mean Capital at charge " 2,11,15,415 | | | |
| Interest at 3.2964 per cent. on above .. | 6,99,049 | | |
| Total .. | 3,52,71,980 | | |
| Balance Revenue after defraying Interest charges | 4,56,20,683 | | |
| Total .. | 8,09,01,663 | Total .. | 8,09,01,663 |

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17

| Particulars. | Previous. | 1916-17. | Total. |
|--|-----------|----------|-----------|
| | Rs. | Rs. | Rs. |
| CAPITAL— | | | |
| Capitalization of abatement of Land Revenue .. | 20,639 | 25 | 20,664 |
| Leave and Pension Allowances .. | 7,21,369 | —5,010 | 7,16,359 |
| Total .. | 7,42,008 | —4,985 | 7,37,023 |
| REVENUE— | | | |
| Capitalization of abatement of Land Revenue .. | 19,574 | 526 | 20,099 |
| Leave and Pension Allowances .. | 27,86,616 | 1,00,810 | 28,87,426 |
| Total .. | 27,66,190 | 1,01,336 | 28,67,526 |

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

| PARTICULARS. | CHARGE SANCTIONS. | | | CURRENT SANCTIONS. | | | Total charges to date against old sanctioned sanctions. | REMARKS. | | |
|--|--|---|-------------|--------------------|--------------------------------|-------------------------------|---|------------|-----------------------|----------|
| | Expenditure against Construction Estimate. | Expenditure against open canal sanctions. | Total. | Charges to date. | Amount of Sanctioned Estimate. | Unspent. Balance of Estimate. | | Authority. | No. and date. | Amount. |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | | | Rs. |
| DIRECT CHARGES— | | | | | | | | | | |
| Works .. | 1,24,50,791 | 32,70,601 | 1,57,30,482 | 5,46,527 | 7,74,432 | 2,27,905 | 1,62,77,009 | G. I. | 935 I | 1,22,989 |
| Establishment .. | 27,91,452 | 6,33,838 | 34,25,290 | 37,458 | 48,107 | 10,739 | 34,62,748 | G. I. | 16-6-14 479 I | 1,33,894 |
| Tools and Plant .. | 4,98,216 | 3,97,043 | 8,95,258 | 21,041 | 18,203 | —2,838 | 9,16,299 | Secy. | 29-4-15 1138 W. I. | 8,506 |
| Suspense Balances .. | .. | .. | .. | 4,61,237 | .. | —4,61,237 | 4,61,237 | I. B. | 9-3-15 | |
| Total .. | 1,57,40,458 | 43,10,572 | 2,00,51,030 | 10,66,263 | 8,40,532 | —2,25,431 | 2,11,17,293 | Secy. | 731 W. I. | 3,696 |
| | | | | | | | | I. B. | 4-2-13 | |
| Less Receipts on Capital Account | 16,955 | .. | 16,955 | .. | .. | .. | 16,955 | G. I. | 1745 I | 5,05,683 |
| | | | | | | | | S. E. | 20-11-13 308 | 837 |
| | | | | | | | | S. E. | 20-1-16 | |
| Net Total .. | 1,57,23,503 | 43,10,572 | 2,00,34,075 | 10,66,263 | 8,40,532 | —2,25,431 | 2,11,00,338 | S. E. | 7370 | 2,058 |
| | | | | | | | | S. E. | 22-11-15 | |
| INDIRECT CHARGES— | | | | | | | | S. E. | 1835 | 230 |
| Capitalized abatement of Land Revenue. | 8,381 | 12,280 | 20,661 | .. | .. | .. | 20,661 | S. E. | 22-3-15 | |
| Leave and Pension Allowances. | 6,22,375 | 88,737 | 7,11,112 | 5,247 | .. | —5,247 | 7,16,359 | Secy. | 2706 | 41,752 |
| Total .. | 6,30,756 | 1,01,017 | 7,31,773 | 5,247 | .. | —5,247 | 7,37,020 | I. B. | 29-10-08 | 11,145 |
| | | | | | | | | Do. | 120 | |
| | | | | | | | | Do. | 0-1-17 76 | 4,542 |
| GRAND TOTAL | 1,63,54,259 | 44,11,589 | 2,07,65,848 | 10,71,510 | 8,40,832 | —2,30,678 | 2,18,27,358 | Do. | 16-12-16 | 4,700 |
| | | | | | | | | Do. | 75 | |
| | | | | | | | | Do. | 18-12-16 | 8,40,832 |

OFFICE OF ACCOUNTANT-GENERAL.
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Sirhind Canal Project.

No. 2—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNT. | DIRECT CHARGES. | | | | | | | | | Cost of construction as now estimated (Construction Estimate closed on 31st March). | Expenditure against closed Estimates. |
|-------------------------------------|-----------------|----------|-------------|---------------|----------|-----------|-------------|----------|-------------|---|---------------------------------------|
| | IMPERIAL. | | | CONTRIBUTION. | | | TOTAL. | | | | |
| | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. | | |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | | |
| 1.—WORKS. | | | | | | | | | | | |
| 1. HEAD WORKS— | | | | | | | | | | | |
| A.—Preliminary Expenses. | 483 | ... | 483 | 272 | .. | 272 | 755 | ... | 755 | | |
| B.—Land | 7,063 | .. | 7,063 | 3,074 | ... | 3,074 | 11,037 | ... | 11,037 | | |
| C.—Works | 9,17,711 | 23,217 | 9,40,928 | 5,16,213 | 13,060 | 5,29,273 | 14,33,921 | 36,277 | 14,70,201 | | |
| K.—Buildings | 69,065 | 2,976 | 72,041 | 38,819 | 1,674 | 40,493 | 1,07,914 | 4,050 | 1,12,504 | | |
| O.—Miscellaneous .. | 73,804 | .. | 73,804 | 3,535 | .. | 3,535 | 77,342 | .. | 77,342 | | |
| P.—Maintenance .. | 24,101 | .. | 24,101 | 13,539 | .. | 13,539 | 37,603 | ... | 37,603 | | |
| TOTAL .. | 10,92,230 | 20,193 | 11,12,423 | 5,76,105 | 14,734 | 5,91,139 | 16,68,635 | 40,927 | 17,09,562 | | |
| 2.—MAIN CANAL AND BRANCHES— | | | | | | | | | | | |
| A.—Preliminary Expenses. | 23,536 | .. | 23,536 | 19,395 | .. | 19,395 | 42,934 | ... | 42,934 | | |
| B.—Land | 5,59,850 | .. | 5,59,850 | 2,51,332 | .. | 2,51,332 | 8,14,212 | ... | 8,14,212 | | |
| D.—Regulators .. | 4,18,720 | .. | 4,18,720 | 2,95,027 | ... | 2,95,027 | 7,13,747 | .. | 7,13,747 | | |
| E.—Falls and Weirs .. | 7,74,938 | .. | 7,74,938 | 3,07,909 | .. | 3,07,909 | 11,72,847 | ... | 11,72,847 | | |
| F.—(1).—Other Cross Drainage Works. | 12,32,657 | .. | 12,32,657 | 10,41,540 | .. | 10,41,540 | 22,71,136 | ... | 22,71,136 | | |
| G.—Bridges | 3,05,833 | 2,572 | 3,08,405 | 4,89,940 | —277 | 4,89,663 | 12,95,782 | 2,295 | 12,98,077 | | |
| H.—Escapes | 1,80,086 | .. | 1,80,086 | 1,03,313 | .. | 1,03,313 | 2,89,099 | .. | 2,89,099 | | |
| I.—Navigation Works | 17,47,254 | .. | 17,47,254 | 3,54,210 | .. | 3,54,210 | 21,31,800 | .. | 21,31,800 | | |
| J.—Mills | 41,513 | .. | 41,513 | ... | .. | ... | 11,513 | .. | 11,513 | | |
| K.—Buildings | 9,41,936 | .. | 9,41,936 | 3,10,346 | .. | 3,10,346 | 12,55,301 | ... | 12,55,301 | | |
| L.—Earthwork | 18,83,354 | —7,731 | 18,75,623 | 31,61,614 | .. | 31,61,614 | 80,45,438 | —7,731 | 80,37,707 | | |
| M.—Plantations .. | 1,20,812 | .. | 1,20,812 | 1,01,258 | .. | 1,01,258 | 2,25,170 | .. | 2,25,170 | | |
| N.—Tanks and Reservoirs | 1,910 | .. | 1,910 | .. | .. | .. | 1,040 | ... | 1,940 | | |
| O.—Miscellaneous .. | 87,807 | .. | 87,807 | 77,397 | .. | 77,397 | 1,65,281 | .. | 1,65,281 | | |
| P.—Maintenance .. | 2,27,821 | .. | 2,27,821 | 2,00,075 | ... | 2,00,075 | 4,30,896 | ... | 4,30,896 | | |
| TOTAL .. | 120,58,107 | —6,159 | 1,20,51,948 | 8,45,002 | —277 | 8,44,725 | 1,89,00,709 | —5,430 | 1,89,00,279 | | |
| 2.—DISTRIBUTARIES— | | | | | | | | | | | |
| A.—Preliminary Expenses. | 51,008 | .. | 51,008 | 30,471 | ... | 30,471 | 91,379 | .. | 91,379 | | |
| B.—Land | 3,80,536 | .. | 3,80,536 | 72,601 | ... | 72,601 | 4,59,137 | .. | 4,59,137 | | |
| C.—Works | 14,08,001 | ... | 14,08,001 | 7,95,007 | .. | 7,95,007 | 22,03,008 | .. | 22,03,008 | | |
| L.—Earthwork | 10,67,049 | ... | 10,67,049 | 9,77,792 | ... | 9,77,792 | 20,35,738 | ... | 20,35,738 | | |
| O.—Miscellaneous .. | 2,55,485 | ... | 2,55,485 | 17,803 | ... | 17,803 | 2,73,288 | ... | 2,73,288 | | |
| P.—Maintenance .. | .. | ... | .. | .. | .. | .. | .. | ... | .. | | |
| TOTAL .. | 37,59,870 | 21,034 | 37,80,904 | 10,02,674 | 14,477 | 10,02,674 | 50,02,650 | ... | 50,02,650 | | |

OFFICE OF ACCOUNTANT-GENERAL.
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.
Sirhind Canal Project.

| HEADS OF ACCOUNT. | DIRECT CHARGES. | | | | | | | | | Cost of construction as now estimated. (Construction Estimate closed on 31st March.) | Expenditure against estimates. |
|--------------------------------------|-----------------|----------|-------------|---------------|----------|-------------|-------------|----------|-------------|--|--------------------------------|
| | IMPERIAL. | | | CONTRIBUTION. | | | TOTAL. | | | | |
| | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. | | |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| DRAINAGE AND PROTECTIVE WORKS. | | | | | | | | | | | |
| A.—Preliminary Expenses. | 31 | .. | 31 | 17 | .. | 17 | 48 | .. | 48 | | |
| B.—Land .. | 55,082 | .. | 55,082 | 44,530 | .. | 44,530 | 1,00,518 | .. | 1,00,518 | | |
| C.—Works .. | 3,303 | .. | 3,303 | 1,858 | .. | 1,858 | 5,161 | .. | 5,161 | | |
| L.—Earthwork .. | 5,31,372 | .. | 5,31,372 | 1,24,092 | .. | 1,24,092 | 9,55,464 | .. | 9,55,464 | | |
| O.—Miscellaneous .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | | |
| P.—Maintenance .. | 2,622 | .. | 2,622 | 1,475 | .. | 1,475 | 4,097 | .. | 4,097 | | |
| TOTAL .. | 5,93,310 | .. | 5,93,310 | 1,47,078 | .. | 1,47,078 | 10,06,288 | .. | 10,06,288 | | |
| TOTAL I—WORKS .. | 1,75,03,613 | 21,034 | 1,75,24,647 | 97,00,650 | 14,467 | 98,14,116 | 1,73,03,272 | 35,401 | 2,73,38,673 | 2,73,54,170 | 2,73,24,203 |
| II.—ESTABLISHMENT. | | | | | | | | | | | |
| 5. DIRECTION .. | .. | —982 | —982 | .. | 807 | 807 | .. | —118 | —118 | | |
| 6. EXECUTIVE .. | .. | .. | .. | (a) | .. | .. | .. | .. | .. | | |
| 7. MEDICAL .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | | |
| 8. SPECIAL SURVEY .. | 40,55,080 | —1,120 | 40,53,960 | 28,20,514 | —131 | 28,20,383 | 74,84,603 | —1,261 | 74,83,342 | | |
| 8½. SPECIAL FIXED SURVEY. | .. | .. | .. | .. | .. | .. | .. | .. | .. | | |
| LEAVE AND PENSION ALLOWANCES | .. | .. | .. | 5,39,050 | 103 | 5,40,053 | 5,39,050 | 103 | 5,40,053 | | |
| TOTAL .. | 40,55,080 | —2,102 | 40,52,978 | 33,60,464 | 834 | 33,70,303 | 80,24,553 | —1,263 | 80,23,290 | 80,33,405 | 80,28,076 |
| III.—TOOLS AND PLANT. | | | | | | | | | | | |
| 9. NAVIGATION PLANT | .. | .. | .. | .. | .. | .. | .. | .. | .. | | |
| 10. MILL PLANT .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | | |
| 11. RAILWAY PLANT AND ROLLING STOCK. | 21,07,210 | —99 | 21,06,111 | 11,90,922 | —12 | 11,90,910 | 32,06,138 | —111 | 32,06,027 | | |
| 12.—MISCELLANEOUS. | .. | .. | .. | .. | .. | .. | .. | .. | .. | | |
| 13.—REPAIRS AND CARriage. | .. | .. | .. | .. | .. | .. | .. | .. | .. | | |
| Loss BY EXCHANGE .. | 2,740 | .. | 2,740 | 10,568 | .. | 10,568 | 13,308 | .. | 13,308 | | |
| TOTAL .. | 21,07,956 | —99 | 21,07,857 | 12,01,490 | —12 | 12,01,478 | 33,09,446 | —111 | 33,09,335 | 33,10,107 | 33,09,732 |
| IV.—SUSPENSE ACCOUNT. | | | | | | | | | | | |
| STOCK .. | 1,84,824 | 18,615 | 2,03,439 | .. | .. | .. | 1,84,824 | 18,615 | 2,03,439 | | |
| 14. STOCK PURCHASES .. | —186 | —164 | —350 | .. | .. | .. | —186 | —164 | —350 | | |
| 16a. STOCK SALES .. | 55 | —50 | 5 | .. | .. | .. | 55 | —50 | 5 | | |
| 16. MISCELLANEOUS ADVANCES. | 1,278 | —685 | 593 | .. | .. | .. | 1,278 | —685 | 593 | | |
| 17. LONDON INVOICES .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | | |
| 18. LONDON STORES.... | .. | .. | .. | .. | .. | .. | .. | .. | .. | | |
| TOTAL .. | 1,85,071 | 17,710 | 2,03,687 | .. | .. | .. | 1,85,071 | 17,710 | 2,03,687 | | |
| GRAND TOTAL .. | 2,44,52,629 | 36,540 | 2,44,89,169 | 1,43,70,513 | 16,284 | 1,43,86,797 | 1,98,23,242 | 61,839 | 2,60,07,081 | 2,60,97,742 | 2,60,62,011 |
| V.—LESS RECEIPTS ON CAPITAL ACCOUNT. | 1,07,518 | .. | 1,07,518 | 68,008 | .. | 68,008 | 1,76,126 | .. | 1,70,120 | | |
| NET TOTAL .. | 2,43,45,111 | 36,540 | 2,43,81,650 | 1,43,02,005 | 16,284 | 1,43,17,289 | 1,96,47,116 | 61,833 | 2,58,96,961 | | |
| APPORTIONMENT. | | | | | | | | | | | |
| 40. IRRIGATION WORKS | 2,43,45,111 | 36,540 | 2,43,81,650 | 1,43,02,005 | 16,284 | 1,43,17,289 | 1,96,47,116 | 61,833 | 2,58,96,961 | | |
| 43 M W. AND NAVIGATION, IMPERIAL. | | | | | | | | | | | |
| PROVINCIAL | | | | | | | | | | | |

(a). Share of accounts excluded from 1913-14.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Sirhind Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| RECEIPTS. | IMPERIAL. | | | CONTRIBUTION. | | | TOTAL. | | |
|--|--------------------|------------------|--------------------|------------------|---------------|------------------|--------------------|------------------|--------------------|
| | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| Occupiers' rates | 6,88,20,806 | 39,53,905 | 7,27,80,771 | 10,831 | 2,602 | 13,679 | 6,88,37,790 | 39,56,067 | 7,27,94,447 |
| Sales of water | 3,86,270 | 26,000 | 4,12,270 | 18,810 | 15 | 18,855 | 4,05,110 | 26,015 | 4,31,125 |
| Supply of towns | 1,260 | 229 | 1,489 | .. | .. | .. | 1,260 | 229 | 1,489 |
| Receipts from Plantations .. | 4,36,801 | 31,341 | 4,67,145 | 2,03,175 | 26,321 | 2,29,496 | 6,36,070 | 52,105 | 6,88,141 |
| Receipts from other Canal produce | 1,79,750 | 1,510 | 1,81,265 | 1,03,265 | 28 | 1,03,293 | 2,83,021 | 1,538 | 2,84,559 |
| Water power | 12,84,940 | 1,03,600 | 12,88,552 | 3,54,017 | 14,750 | 3,68,767 | 27,38,963 | 1,46,080 | 28,57,049 |
| Navigation Receipts | 2,11,676 | 9,793 | 2,21,470 | 1,03,908 | 5,110 | 1,09,056 | 3,15,634 | 15,141 | 3,30,725 |
| Rent of Buildings | 1,13,485 | 5,510 | 1,18,995 | 47,843 | 1,752 | 49,595 | 1,61,328 | 7,262 | 1,68,590 |
| Fines | 45,602 | 1,157 | 46,759 | 215 | .. | 215 | 10,118 | 1,157 | 11,275 |
| Miscellaneous and other Receipts | 15,70,668 | 85,12 | 15,84,701 | 15,551 | 1,062 | 16,613 | 16,22,210 | 89,185 | 17,11,404 |
| TOTAL | 7,56,62,260 | 42,21,539 | 7,78,63,898 | 13,86,100 | 76,400 | 14,01,500 | 7,60,47,369 | 42,98,036 | 7,93,45,404 |
| Share of Land Revenue collected in the Civil Department. | 1,53,064 | 1,42,791 | 2,95,855 | .. | .. | .. | 1,53,064 | 1,42,791 | 2,95,855 |
| Interest on sale-proceeds of waste land benefited. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| TOTAL RECEIPTS | 7,88,15,333 | 43,64,330 | 7,81,79,663 | 13,86,100 | 76,400 | 14,01,500 | 7,82,09,433 | 44,40,826 | 7,96,41,259 |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Sirhind Canal Project.

No. 3—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| CHARGES. | IMPERIAL. | | | CONTRIBUTION. | | | TOTAL. | | |
|--|-------------|-------------------------|-------------------------|---------------|-----------------------|--------------------------|-------------|-------------------------|-------------|
| | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| (I.A.)—EXTENSIONS AND IMPROVEMENTS. | | | | | | | | | |
| (1)—HEAD WORKS .. | 1,02,331 | 28,223 | 2,20,550 | 1,08,027 | 15,878 | 1,23,905 | 3,00,353 | 44,100 | 3,44,453 |
| (2)—MAIN CANAL AND BRANCHES | 10,11,091 | 44,447 | 10,50,638 | 18,14,746 | (a) 1,03,989 | 10,18,745 | 28,26,337 | 1,48,440 | 29,74,788 |
| (3)—DISTRIBUTARIES .. | 6,31,930 | 60,400 | 7,44,380 | 14,232 | .. | 14,202 | 6,90,252 | 60,400 | 7,58,032 |
| (4)—DRAINAGE AND PROTECTIVE WORKS. | 41,250 | 3,197 | 44,477 | 20,452 | 1,708 | 22,250 | 61,732 | 4,095 | 66,727 |
| TOTAL I. A. .. | 19,30,102 | 1,35,272 | 20,65,464 | 19,67,157 | 1,21,675 | 20,70,162 | 38,87,670 | 2,50,947 | 41,44,626 |
| (I.B.)—MAINTENANCE AND REPAIRS | | | | | | | | | |
| (1)—HEAD WORKS .. | 7,50,011 | 14,149 | 7,73,159 | 4,22,400 | 7,958 | 4,30,358 | 11,51,417 | 22,100 | 12,03,523 |
| (2)—MAIN CANAL AND BRANCHES | 39,59,876 | 3,47,602 | 43,07,478 | 27,01,160 | 1,90,860 | 28,61,116 | 63,21,122 | 5,47,471 | 68,68,593 |
| (3)—DISTRIBUTARIES .. | 43,82,991 | 1,84,513 | 45,71,507 | 358 | .. | 356 | 43,83,360 | 1,89,813 | 45,72,173 |
| (4)—DRAINAGE WORKS | 5,02,320 | 24,051 | 5,27,301 | 3,13,705 | 14,231 | 3,27,939 | 5,10,025 | 39,215 | 5,55,240 |
| TOTAL I. B. ... | 96,04,201 | 5,75,611 | 1,01,79,716 | 30,67,724 | 2,12,061 | 33,10,784 | 1,27,01,924 | 7,97,605 | 1,34,99,529 |
| (I.C.)—COMPENSATION | | | | | | | | | |
| .. | 30,211 | 140 | 30,351 | 13,117 | .. | 13,447 | 49,058 | 140 | 49,795 |
| (II)—ESTABLISHMENT | | | | | | | | | |
| (8)—DIRECTION AND ACCOUNT | 11,22,831 | 48,608 | 11,71,392 | 3,46,683 | 22,890 | 3,69,573 | 14,69,567 | 71,404 | 15,40,971 |
| (9)—EXECUTIVE ESTABLISHMENT | 40,09,001 | { + 7,451 2,30,263 } | { + 7,451 6,05,160 } | 17,91,962 | { 87,042 + 1,763 } | { 18,75,804 + 1,703 } | 61,60,763 | { 3,23,210 + 0,214 } | 67,83,973 |
| (7)—MEDICAL Do .. | 1,03,025 | 9,728 | 1,70,363 | 51,310 | 2,353 | 57,103 | 2,21,435 | 12,081 | 2,36,610 |
| (7A)—REVENUE Do. ... | 52,58,000 | 2,72,160 | 65,30,460 | 10,610 | 777 | 11,387 | 62,08,610 | 2,73,210 | 65,41,856 |
| (7B)—NAVIGATION Do .. | 20,930 | 147 | 21,077 | .. | .. | .. | 20,933 | 147 | 21,077 |
| (7D)—LEAVE AND PENSION ALLOWANCE (14 PER CENT. ON Rs 77,218) | .. | .. | .. | 3,09,379 | 15,042 | 3,25,021 | 3,09,379 | + 15,042 | 3,25,021 |
| TOTAL .. | 1,12,40,340 | 5,77,571 | 1,18,17,911 | 25,13,311 | 1,27,373 | 26,40,717 | 1,37,73,084 | 7,04,844 | 1,44,58,628 |

(a). Includes seigniorage amounting to Rs. 52,363 during the year and up to date Rs.

(b). Includes Rs 1,27,574 on account of fees for collection of Revenue.

(c). Share of account under Imperial excluded from 1914-15.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Sirhind Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| CHARGES. | Imperial. | | | CONTRIBUTION. | | | TOTAL. | | |
|--|-------------|-----------|-------------|---------------|-----------|----------------------|-------------|--|--------------------------------------|
| | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| (III). TOOLS AND PLANT. | | | | | | | | | |
| (1).—SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS. | 1,717 | —432 | 1,285 | 549 | 364 | 910 | 2,263 | —87 | 2,196 |
| (2).—PLANT AND MACHINERY | 120 | 1,075 | 1,525 | 84 | 1,461 | 1,548 | 234 | 3,140 | 3,374 |
| (3).—TOOLS .. | 4,630 | 2,077 | 6,707 | 1,405 | 865 | 2,270 | 6,035 | 2,042 | 8,077 |
| (4).—NAVIGATION .. | 4,708 | —10 | 4,698 | 2,407 | 443 | 2,850 | 7,10 | 433 | 7,549 |
| (5).—CAMP EQUIPAGE .. | 10,605 | 60 | 10,665 | 8,845 | 27 | 8,873 | 10,451 | 87 | 10,538 |
| (6).—LIVE STOCK .. | ... | .. | .. | .. | .. | ... | ... | ... | ... |
| (7).—OFFICE FURNITURE .. | 1,035 | 370 | 2,314 | 986 | 325 | 1,311 | 2,021 | 703 | 3,024 |
| (8).—REPAIRS AND CARRIAGE | 1,35,264 | 20,407 | 1,55,071 | 50,615 | 6,863 | 67,448 | 1,05,000 | 27,510 | 2,23,519 |
| MISCELLANEOUS. ... | 3,10,400 | —8,159 | 3,01,940 | 1,02,611 | —602 | 1,01,801 } ÷ 18 } | 4,12,020 | 27,510 —2,435 } (a) + 18 } —5,054 } | 2,23,519 4,10,485 18 —5,054 |
| TOTAL .. | 4,68,410 | 16,084 | 4,65,507 | 1,77,430 | 6,680 | 1,87,110 | 4,40,840 | 25,777 | 6,72,626 |
| (IV).—REFUNDS OF REVENUE. | 78,867 | 651 | 70,521 | 2,598 | 3,370 | 6,555 | 81,463 | 4,524 | 86,087 |
| (V).—PROFIT AND LOSS .. | 372 | .. | 372 | 85 | .. | 85 | 457 | ... | 457 |
| (VI).—SUSPENSE ACCOUNT | | | | | | | | | |
| MISCELLANEOUS ADVANCES .. | ... | .. | .. | 2,227 | —2,227 | ... | 2,227 | —2,227 | ... |
| STOCK .. | ... | .. | .. | 14,489 | 3,544 | 18,032 | 14,488 | 3,544 | 18,032 |
| STOCK SALES .. | ... | .. | .. | 30 | —30 | ... | 30 | —30 | .. |
| STOCK PURCHASES .. | ... | .. | .. | —48 | 48 | ... | —48 | 48 | ... |
| TOTAL SUSPENSE ACCOUNT .. | .. | ... | .. | 16,507 | 1,336 | 18,032 | 16,507 | 1,335 | 18,032 |
| TOTAL .. | 5,33,59,602 | 13,05,269 | 2,46,64,871 | 77,78,800 | 4,80,103 | 82,63,012 | 3,11,38,411 | 17,91,372 | 3,29,20,783 |
| Indirect Charges debitable to Revenue Account as per count No. 6 | 15,80,007 | 82,535 | 16,02,002 | ... | .. | .. | 15,80,007 | 82,535 | 16,02,602 |
| TOTAL CHARGES .. | 2,49,39,080 | 13,87,801 | 2,63,27,473 | 77,78,800 | 4,80,103 | 82,61,912 | 3,27,18,478 | 18,73,907 | 3,45,92,385 |
| Balance, Not Revenue .. | 4,89,75,561 | 20,76,526 | 5,18,52,109 | —63,83,709 | —1,00,007 | —68,03,316 | 4,24,81,055 | 25,68,010 | 4,50,49,874 |
| GRAND TOTAL .. | 7,38,15,333 | 48,01,330 | 7,91,79,053 | 13,36,100 | 76,405 | 14,01,506 | 7,52,00,433 | 44,40,820 | 7,06,41,259 |

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Sirhind Canal Project.

No. 4.—INTEREST ACCOUNT FOR AND TO END OF 1916-17.

| | Amount | | Amount. |
|--|-------------|--|-------------|
| | Rs. | | Rs. |
| Total Interest charges to end of 1915-16 ... | 3,81,40,035 | Net Revenue realized to end of 1915-16 ... | 4,88,75,664 |
| Do. for the year 1916-17 ... | | Do. during 1916-17 ... | 20,76,527 |
| Total outlay to end of March 1917 = 2,43,81,680 | | | |
| Less half outlay during 1916-17 = 18,274 | | | |
| Mean capital at charge = 2,43,63,386 | | | |
| Interest at 3 2964 per cent ... | 8,03,114 | | |
| TOTAL ... | 3,39,43,149 | | |
| Balance Revenue after defraying Interest charges | 1,79,09,012 | | |
| TOTAL ... | 5,18,52,161 | TOTAL ... | 5,18,52,161 |

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| Particulars. | Previous. | 1916-17 | Total. |
|---|-----------|---------|-----------|
| | Rs. | Rs. | Rs. |
| CAPITAL— | | | |
| Capitalization of abatement of Land Revenue ... | 3,20,000 | ... | 3,20,000 |
| Leave and Pension Allowances { Imperial ... | 8,91,348 | —204 | 8,91,054 |
| { Contribution ... | 5,39,950 | 103 | 5,40,053 |
| Total ... | 17,51,307 | —101 | 17,51,206 |
| Deduct Leave and Pension allowances debited to Native States treated as direct charges and transferred to Account No. 2 of the canal. | 5,39,950 | 103 | 5,40,053 |
| Net debit to Imperial Canal ... | 12,11,447 | —294 | 12,11,153 |
| REVENUE— | | | |
| Capitalization of abatement of Land Revenue ... | 6,423 | 1,676 | 8,098 |
| Leave and Pension Allowances { Imperial ... | 15,73,644 | 80,880 | 16,54,524 |
| { Contribution ... | 3,09,379 | 15,642 | 3,25,021 |
| Total ... | 18,89,446 | 98,177 | 19,87,623 |
| Deduct Leave and Pension allowances debited to Native States treated as direct charges and transferred to Account No. 3 of the canal. | 3,09,379 | 15,642 | 3,25,021 |
| Net Imperial Revenue ... | 15,80,067 | 82,535 | 16,62,602 |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Sirhind Canal Project.

No 0—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

| PARTICULARS. | CHARGES AGAINST CLOSED SANCTIONS. | | | CURRENT SANCTIONS | | | Total charges to date against-told and current sanctions | REMARKS |
|---|---|--|-------------|-------------------|-------------------------------|-----------------------------|--|--|
| | Expenditure against Construction Estimate | Expenditure against open canal sanctions | Total. | Charges to date | Amount of Sanctioned Estimate | Unspent Balance of Estimate | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| IMPERIAL | | | | | | | | |
| DIRECT CHARGES— | | | | | | | | |
| Works | 1,56,33,073 | 1,97,723 | 1,75,11,39 | 13,251 | 15,560 | 309 | 1,75,24,647 | L. O. No 317 W.I., dated 20-1-17 = Rs 13,084. |
| Establishment | 40,71,854 | 3,88,500 | 40,00,364 | —7,375 | 4,657 | 11,982 | 16,51,987 | L. O. No. 327 W.I. dated 19-1-17 = Rs 0,361 (a). |
| Tools and Plant | 20,52,353 | 25,180 | 21,06,040 | —183 | 310 | 602 | 21,07,857 | L. O. No. 0657 W.I., dated 12-7-16 = Rs 8051. |
| Suspense Balance | .. | .. | .. | 2,07,567 | .. | —2,03,087 | 2,03,087 | |
| Total | 2,19,59,151 | 22,91,117 | 2,12,74,798 | 2,09,750 | 30,166 | —1,78,014 | 2,44,80,178 | 30,466 |
| Less Receipts on Capital Account. | 1,07,515 | .. | 1,07,515 | .. | .. | .. | 1,07,515 | |
| Net Total | 2,18,50,863 | 22,91,417 | 2,11,72,280 | 2,09,350 | 30,166 | —1,78,014 | 2,13,81,66 | |
| INDIRECT CHARGES— | | | | | | | | |
| Capitalized obsolescence of Land Revenue. | 1,16,270 | 1,820 | 3,20,090 | .. | .. | .. | 3,20,090 | |
| Leave and Pension Allowances. | 3,37,691 | 54,391 | 8,02,067 | —1,033 | .. | 1,033 | 8,01,051 | |
| Total | 11,52,97 | 59,213 | 12,12,180 | —1,033 | .. | 1,033 | 12,11,151 | |
| GRAND TOTAL | 2,30,03,836 | 23,50,630 | 2,53,84,100 | 2,09,347 | 30,406 | —1,77,881 | 2,55,02,511 | L. O. No. 327 W.I., dated 19-1-17 = Rs 5,265 (b) |
| CONTRIBUTION | | | | | | | | |
| DIRECT CHARGES— | | | | | | | | |
| Works | 93,69,025 | 4,43,782 | 98,12,807 | 1,309 | 1,407 | 3,095 | 98,14,116 | |
| Establishment | 32,60,601 | 1,01,110 | 33,67,711 | 2,580 | 802 | —1,787 | 33,70,804 | |
| Tools and Plant | 11,96,990 | 8,712 | 12,01,002 | —214 | 56 | 271 | 12,01,178 | |
| Suspense Balance | .. | .. | .. | .. | .. | .. | .. | |
| Total | 1,38,21,600 | 5,50,004 | 1,43,82,213 | 3,084 | 5,265 | 1,581 | 1,43,86,405 | |
| Less Receipts on Capital Account. | 88,603 | 15 | 88,608 | .. | .. | .. | 88,608 | |
| Net Total | 1,37,44,010 | 5,50,589 | 1,43,13,005 | 3,084 | 5,265 | 1,581 | 1,43,17,286 | |
| GRAND TOTAL | 1,37,03,010 | 5,50,589 | 1,43,13,605 | 3,581 | 5,266 | 1,581 | 1,43,17,286 | |

OFFICE OF ACCOUNTANT-GENERAL

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Lower Chenab Canal Project.

No 2 — CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNT | DIRECT CHARGES. | | | Cost of construction as now estimated Construction Estimate closed on 31st March 1900. | Expenditure against closed Estimates. |
|---------------------------------------|-----------------|----------|-------------|--|---------------------------------------|
| | Imperial. | | | | |
| | Previous. | 1916-17 | Total | | |
| | Rs. | Rs. | Rs. | Rs. | Rs. |
| 1.—WORKS— | | | | | |
| 1.—HEAD WORKS— | | | | | |
| A—Preliminary Expenses | 5,710 | .. | 5,710 | | |
| B.—Land | 64,105 | .. | 64,105 | | |
| C.—Works | 50,47,622 | 3,06,244 | 53,53,866 | | |
| K—Buildings | 1,01,428 | —3,527 | 7,901 | | |
| O—Miscellaneous | 6,084 | .. | 6,084 | | |
| P—Maintenance | 1,68,784 | .. | 1,68,784 | | |
| Total | 53,93,733 | 3,02,717 | 56,06,450 | | |
| 2.—MAIN CANAL AND BRANCHES— | | | | | |
| A—Preliminary Expenses | 1,26,369 | .. | 1,26,369 | | |
| B.—Land | 2,15,279 | .. | 2,15,279 | | |
| D—Regulators | 10,84,449 | 17,666 | 11,02,115 | | |
| E.—Falls and Weirs | 6,18,284 | .. | 6,18,284 | | |
| F. (1).—Other Cross Drainage Works .. | 6,87,002 | .. | 6,87,002 | | |
| G.—Bridges | 10,00,607 | .. | 10,60,607 | | |
| H.—Escapes | 5,42,313 | .. | 5,42,313 | | |
| J.—Mills | 73,020 | .. | 73,020 | | |
| K.—Buildings | 17,04,404 | 1,878 | 17,06,082 | | |
| L.—Earthwork | 75,22,756 | 8,755 | 75,26,511 | | |
| M.—Plantations | 1,39,734 | .. | 1,39,734 | | |
| O.—Miscellaneous | 4,34,841 | —32,417 | 4,02,424 | | |
| P.—Maintenance | 1,05,047 | .. | 1,05,047 | | |
| Total | 1,43,14,105 | —9,318 | 1,43,04,787 | | |
| —DISTRIBUTARIES— | | | | | |
| A—Preliminary Expenses | 1,34,668 | 3,912 | 1,38,580 | | |
| B.—Land | 1,17,868 | 12 5 | 1,22,993 | | |
| C.—Works | 17,76,831 | 63,076 | 18,40,507 | | |
| L.—Earthwork | 25,65,825 | 45 | 25,74,800 | | |
| O.—Miscellaneous | 4,76,221 | 2,920 | 4,79,141 | | |
| P.—Maintenance | 34,70 | .. | 34,670 | | |
| Total | 52,06,083 | 1,24,615 | 53,30,598 | | |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Lower Chenab Canal Project.

N. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNT. | DIRECT CHARGES. | | | Cost of construction as now estimated (Construction Estimate closed on 31st March 1900). | Expenditure against closed Estimates. |
|---|-----------------|----------|-------------|--|---------------------------------------|
| | Imperial. | | | | |
| | Previous. | 1916-17 | Total. | | |
| | Rs. | Rs. | Rs. | Rs. | Rs. |
| 4. DRAINAGE AND PROTECTIVE WORKS— | | | | | |
| A.—Preliminary Expenses | 10,771 | .. | 10,771 | | |
| B.—Land | 21,602 | .. | 24,602 | | |
| C.—Works | 38,271 | 9,175 | 47,446 | | |
| L.—Earthwork | 1,75,896 | 2,850 | 1,78,730 | | |
| O.—Miscellaneous | 37,413 | 137 | 37,550 | | |
| P.—Maintenance | 1,162 | .. | 1,162 | | |
| TOTAL | 2,97,105 | 12,162 | 3,09,267 | .. | .. |
| TOTAL I.—WORKS | 2,97,105 | 12,162 | 3,09,267 | 2,02,17,146 | 2,45,70,000 |
| II.—ESTABLISHMENT. | | | | | |
| 5. DIRECTION | 12,57,525 | 16,827 | 12,74,352 | | |
| 6. EXECUTIVE | 34,39,307 | 70,437 | 35,09,744 | | |
| 7. MEDICAL | 62,175 | .. | 62,175 | | |
| 8. SPECIAL SURVEY | .. | .. | .. | | |
| 8½. SPECIAL FIELD SURVEY | .. | .. | .. | | |
| LEAVE AND PENSION ALLOWANCES | .. | .. | .. | | |
| TOTAL | 47,57,007 | 87,264 | 48,44,271 | 48,08,852 | 46,39,907 |
| III.—TOOLS AND PLANT. | | | | | |
| 9. NAVIGATION PLANT | .. | .. | .. | | |
| 10. MILL PLANT | .. | .. | .. | | |
| 11. RAILWAY PLANT AND ROLLING-STOCK | 15,000 | .. | 15,000 | | |
| 12. MISCELLANEOUS | 5,15,976 | 6,215 | 5,22,191 | | |
| 13. REPAIRS AND CARRIAGE | 1,02,325 | .. | 1,02,325 | | |
| LOST BY EXCHANGE | .. | .. | .. | | |
| TOTAL | 5,33,301 | 6,215 | 5,39,516 | 7,27,365 | 6,40,125 |
| IV.—SUSPENSE ACCOUNT. | | | | | |
| 14. STOCK | 5,03,578 | —10,452 | 4,93,126 | | |
| 15. STOCK PURCHASES | —34,735 | 20,658 | —14,077 | | |
| 15½. STOCK SALES | 3,845 | —3,775 | 70 | | |
| 16. MISCELLANEOUS ADVANCES | 3,324 | 7,634 | 10,958 | | |
| 17. LONDON INVOICES | .. | .. | .. | | |
| 18. LONDON STOCKS | .. | .. | .. | | |
| TOTAL | 4,75,905 | 22,466 | 4,98,371 | .. | .. |
| GRAND TOTAL | 3,10,47,302 | 5,46,021 | 3,15,93,323 | 3,18,73,369 | 2,98,34,158 |
| V.—LESS RECEIPTS ON CAPITAL ACCOUNT. | 14,403 | .. | 14,403 | 14,403 | 14,403 |
| NET TOTAL | 3,10,32,899 | 5,46,021 | 3,15,78,920 | 3,18,58,966 | 2,98,19,749 |
| APPORTIONMENT. | | | | | |
| 40. IRRIGATION WORKS | 3,10,16,189 | 5,46,021 | 3,15,62,210 | .. | .. |
| 42. M. W. AND NAVIGATION, IMPERIAL | 11,410 | .. | 11,410 | .. | .. |

(a). Excludes share of accounts commencing from 1912-13.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Lower Chenab Canal Project

No. 3—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| RECEIPTS. | IMPERIAL. | | | CHARGES. | IMPERIAL. | | |
|--|--------------|-------------|--------------|---|--------------|-------------|--------------|
| | Previous. | 1916-17. | Total. | | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | | Rs. | Rs. | Rs. |
| Occupiers' rates ... | 12,29,04,017 | 86,03,040 | 13,15,67,053 | I.A.—EXTENSIONS AND IMPROVEMENTS | | | |
| Owners' rates on irrigated land. | 58,13,828 | | 58,13,828 | 1.—HEAD WORKS ... | 14,86,476 | 2,36,716 | 17,23,192 |
| Sales of water | 2,50,403 | 20,342 | 2,70,745 | 2.—MAIN CANAL AND BRANCHES | 12,12,420 | 41,693 | 12,57,122 |
| Supply of Towns | 13,477 | 5,050 | 18,527 | 3.—DISTRICTIONARIES | 13,22,560 | 2,18,500 | 15,41,132 |
| Receipts from plantations | 1,63,729 | 16,070 | 1,79,799 | 4.—DRAINAGE AND PROTECTIVE WORKS | 1,25,272 | 29,138 | 1,54,410 |
| Receipts from other Canal produce. | 81,938 | 180 | 82,118 | TOTAL I. A. | 41,46,748 | 5,29,112 | 46,75,866 |
| Water power | 1,68,617 | 13,119 | 1,81,736 | II.B.—MAINTENANCE AND REPAIRS. | | | |
| Rent of Buildings | 2,00,700 | 12,530 | 2,13,230 | 1.—HEAD WORKS | 17,67,347 | 1,10,510 | 19,08,022 |
| Fines | 31,914 | 1,791 | 33,705 | 2.—MAIN CANAL AND BRANCHES | 64,43,715 | 4,82,110 | 69,25,828 |
| Miscellaneous and other Receipts. | 4,39,701 | 15,701 | 4,55,402 | 3.—DISTRICTIONARIES | 13,95,750 | 2,50,669 | 16,46,419 |
| Total | 1,01,79,545 | 87,62,117 | 1,89,41,662 | 4.—DRAINAGE WORKS | 66,470 | 24,131 | 90,601 |
| Share of Land Revenue collected in the Civil Department. | 3,60,32,441 | 11,62,751 | 4,71,95,192 | TOTAL II. B. | 1,47,93,229 | 5,70,610 | 1,53,63,839 |
| Interest on sale proceeds of waste land benefited. | 10,05,051 | 9,05,213 | 19,10,264 | I.C.—COMPENSATION. | 1,05,980 | 2,000 | 1,07,980 |
| | | | | III.—ESTABLISHMENT. | | | |
| | | | | 5.—DIRECTION AND ACCOUNT. | 12,17,507 | 61,050 | 12,78,557 |
| | | | | 6.—EXECUTIVE ESTABLISHMENT. | 60,72,633 | 5,03,690 | 65,76,323 |
| | | | | 7.—MEDICAL ESTABLISHMENT. | 3,50,607 | 27,548 | 3,78,155 |
| | | | | 7A.—RESIDENCE ESTABLISHMENT. | 50,94,120 | 6,13,612 | 57,07,732 |
| | | | | TOTAL | 1,27,41,317 | 11,07,222 | 1,38,48,539 |
| | | | | III.—TOOLS AND PLANT | | | |
| | | | | 1.—SCIENTIFIC INSTRUMENTS AND DRAWING MATERIAL | 1,002 | 513 | 1,515 |
| | | | | 2.—PLANT AND MACHINERY | 23,000 | 15,044 | 38,044 |
| | | | | 3.—TOOLS | 5,755 | 7,893 | 13,648 |
| | | | | 4.—NAVIGATION PLANT | 613 | 517 | 1,130 |
| | | | | 5.—CAMP EQUIPAGE | 1,000 | 424 | 1,424 |
| | | | | 6.—LIVE STOCK | 114 | 280 | 394 |
| | | | | 7.—OFFICE FURNITURE | 2,028 | 2,329 | 4,357 |
| | | | | 8.—MISCELLANEOUS | 4,66,131 | 1,671 | 4,67,802 |
| | | | | 9.—REPAIRS AND CARRIAGE | 2,28,415 | 12,105 | 2,40,520 |
| | | | | 10.—MILL PLANT | 5,800 | | 5,800 |
| | | | | 11.—RAILWAY PLANT AND ROLLING STOCK. | 31,070 | | 31,070 |
| | | | | TOTAL | 7,70,160 | 48,175 | 8,18,335 |
| | | | | IV.—Refund of Revenue | 1,17,753 | 341 | 1,18,094 |
| | | | | TOTAL | 3,81,82,274 | 25,97,018 | 4,07,79,292 |
| | | | | Indirect charges debitable to Revenue Account as per Account No 5 | 22,91,012 | 1,54,100 | 24,45,112 |
| Total | 4,70,11,082 | 80,68,027 | 5,50,79,109 | Total Charges | 3,84,76,286 | 27,51,118 | 4,12,27,404 |
| TOTAL RECEIPTS | 17,52,11,827 | 1,68,30,444 | 19,20,42,271 | Balance, Net Revenue | 13,67,75,811 | 1,41,10,322 | 15,08,86,133 |
| | | | | GRAND TOTAL | 17,52,11,827 | 1,68,30,444 | 19,20,42,271 |

(a) Excludes share of acc units commencing from 1912-13.

(b) Includes Rs. 2,61,712 on account of Lamberla's fee for collection of Revenue.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Lower Chenab Canal Project.

No. 4.—INTEREST ACCOUNT FOR AND TO END OF 1916-17.

| | Amount. | | Amount. |
|--|-----------------|---|------------------|
| Total Interest charges to end of 1915-16 ... | Rs. 2,26,74,051 | Net Revenue realized to end of 1915-16 .. | Rs. 13,07,35,841 |
| Do. for the year 1916-17 ... | | Do. during 1916-17 .. | 1,41,10,820 |
| Total outlay to end of 31st March 1917 = 3,16,78,320 | | | |
| Less half the outlay during 1916-17 = 2,73,011 | | | |
| Mean capital at charge .. = 3,13,05,909 | | | |
| Interest at 3.2984 per cent. .. | 10,31,068 | | |
| Total .. | 2,37,00,619 | | |
| Balance Revenue after defraying Interest charges .. | 12,71,30,042 | | |
| Total .. | 15,08,45,661 | Total .. | 16,08,46,000 |

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| Particulars. | Previous. | 1916-17 | Total. |
|--|-----------|----------|-----------|
| | Rs. | Rs. | Rs. |
| CAPITAL— | | | |
| Capitalization of abatement of Land Revenue .. | 1,02,219 | | 1,02,219 |
| Leave and Pension Allowances .. | 6,01,862 | 12,217 | 6,14,079 |
| Total .. | 7,03,881 | 12,217 | 7,16,098 |
| REVENUE— | | | |
| Capitalization of abatement of Land Revenue .. | 3,226 | 26 | 3,252 |
| Leave and Pension Allowances .. | 22,87,787 | 1,55,051 | 24,42,838 |
| Total .. | 22,91,012 | 1,55,108 | 24,46,120 |

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

| PARTICULARS. | CHARGES AGAINST CLOSED SANCTIONS. | | | CURRENT SANCTIONS. | | | Total charges to date against old and current sanctions. | REMARKS. |
|--|--|---|--------------------|--------------------|----------------------------------|------------------------------|--|--|
| | Expenditure against Construction Estimate. | Expenditure against open canal sanctions. | Total | Charges to date. | Amount of Sanctions of Estimate. | Unspent Balance of Estimate. | | |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| DIRECT CHARGES— | | | | | | | | |
| Works .. | 1,89,23,202 | 10,49,858 | 2,46,70,000 | 10,71,042 | 16,77,086 | 6,06,044 | 2,56,41,102 | G. I. 471 = 4,03,153 16-1-16 Do 0-0-1 = 1,75,752 8-4-14 Du 521-1 = 1,72,701 16-3-14 Do 603-1 = 2,25,338 6-4-14 Do 1200-1 = 1,48,007 21-2-14 Do 53-1 = 80,164 16-1-15 L.G. 618 W.I. = 13,972 29-6-16 Do 0137-1 W.I. = 11,103 16-8-16 Do 1008 W.I. = 2,348 7-8-16 Do 1243 W.I. = 30,423 5-8-16 G. I. 0050-1 = 1,76,036 27-9-16 L.G. 2581 W.I. = 3,068 20-1-11-16 775-1 G. I. 128-1 = 3,12,114 21-11-16 L.G. 74 W.I. = 18,065 8-12-16 Do 334 W.I. = 9,390 7-12-16 Do 73 W.I. = 751 8-12-16 G. I. 115-1 = 2,03,391 20-2-17 Total .. 20,30,211 |
| Establishment .. | 30,10,000 | 9,83,901 | 10,23,967 | 1,00,301 | 2,74,886 | 84,581 | 18,14,271 | |
| Tools and Plant .. | 5,02,825 | 17,500 | 6,10,125 | —600 | 87,240 | 87,540 | 9,39,519 | |
| Suspense Balances .. | | | | 4,98,431 | | —4,98,431 | 4,98,431 | |
| Total .. | 2,44,50,003 | 20,78,659 | 2,65,34,662 | 17,69,171 | 20,39,211 | 2,80,040 | 3,15,03,322 | |
| Less Receipts on Capital Account. | 14,403 | | 14,403 | | | | 14,403 | |
| Not Total .. | 2,44,41,000 | 20,78,659 | 2,65,19,740 | 17,69,171 | 20,39,211 | 2,80,040 | 3,15,78,020 | |
| INDIRECT CHARGES— | | | | | | | | |
| Capitalized abatement of Land Revenue .. | 2,060 | 0,810 | 1,01,500 | 360 | | —350 | 1,02,219 | |
| Leave and Pension Allowances .. | 6,09,390 | 1,77,746 | 6,17,236 | 20,813 | | —20,043 | 6,73,879 | |
| Total .. | 6,01,510 | 1,77,866 | 7,65,105 | 20,003 | | —20,093 | 7,70,068 | |
| GRAND TOTAL .. | 2,47,13,230 | 22,56,525 | 3,05,05,861 | 17,86,103 | 20,39,211 | 2,53,017 | 3,23,55,018 | |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Upper Sutlej Inundation Canal Project.

No. (2).—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNT. | | | | DIRECT CHARGES. | | | Cost of construction as now estimated (Construction Estimate closed on 31st March) | Expenditure against closed Estimate. |
|--|--|--|--|-----------------|----------|-----------|--|--------------------------------------|
| | | | | Imperial. | | | | |
| | | | | Previous | 1916-17. | Total. | | |
| | | | | Rs. | Rs. | Rs. | Rs. | Rs. |
| I.—WORKS. | | | | | | | | |
| 2. MAIN CANAL AND BRANCHES— | | | | | | | | |
| A.—Preliminary Expenses | | | | 3,849 | ... | 3,849 | | |
| B.—Land | | | | 43,848 | ... | 43,848 | | |
| D.—Regulators | | | | 30,512 | ... | 30,512 | | |
| E.—Falls and Weirs | | | | 69,015 | ... | 69,015 | | |
| G.—Bridges | | | | 52,402 | ... | 52,402 | | |
| K.—Buildings | | | | 2,20,802 | 581 | 2,20,883 | | |
| L.—Earthwork | | | | 5,62,555 | ... | 5,62,555 | | |
| O.—Miscellaneous | | | | 5,112 | ... | 5,112 | | |
| P.—Maintenance | | | | 2,457 | .. | 2,457 | | |
| TOTAL | | | | 9,80,142 | 581 | 9,80,723 | | |
| 3. DISTRIBUTARIES— | | | | | | | | |
| A.—Preliminary Expenses | | | | 3,842 | ... | 3,842 | | |
| B.—Land | | | | 45,782 | ... | 45,782 | | |
| C.—Works | | | | 82,930 | ... | 82,930 | | |
| L.—Earthwork | | | | 2,35,365 | .. | 2,35,365 | | |
| O.—Miscellaneous | | | | 22,941 | ... | 22,941 | | |
| P.—Maintenance | | | | 4,652 | ... | 4,652 | | |
| TOTAL | | | | 3,95,512 | ... | 3,95,512 | | |
| TOTAL I.—WORKS | | | | 13,75,654 | 581 | 13,76,235 | 13,76,235 | 13,76,235 |
| II.—ESTABLISHMENT. | | | | | | | | |
| 5. DIRECTION | | | | (a) 54,888 | 21 | 54,909 | | |
| 6. EXECUTIVE | | | | 2,37,272 | 78 | 2,37,350 | | |
| 7. MEDICAL | | | | 2,953 | ... | 2,953 | | |
| TOTAL | | | | 2,95,113 | 99 | 2,95,212 | 2,95,212 | 2,95,212 |
| III.—TOOLS AND PLANT. | | | | | | | | |
| 12. MISCELLANEOUS | | | | 24,566 | 7 | 24,573 | | |
| 13. REPAIRS AND CARRIAGE | | | | 114 | ... | 114 | | |
| TOTAL | | | | 24,680 | 7 | 24,687 | 24,687 | 24,687 |
| IV.—SUSPENSE ACCOUNT. | | | | | | | | |
| 14. STOCK | | | | 21,982 | 680 | 22,662 | | |
| 15. STOCK SALES | | | | 1 | 2 | 3 | | |
| 16. MISCELLANEOUS ADVANCES | | | | 80 | 82 | 162 | | |
| TOTAL | | | | 22,063 | 764 | 22,827 | | |
| GRAND TOTAL | | | | 17,17,510 | 1,451 | 17,18,961 | 16,96,134 | 16,96,134 |
| V.—LESS RECEIPTS ON CAPITAL ACCOUNT | | | | 156 | ... | 156 | 156 | 156 |
| NET TOTAL | | | | 17,17,354 | 1,451 | 17,18,805 | 16,95,978 | 16,95,978 |
| APPORTIONMENT. | | | | | | | | |
| 49. IRRIGATION WORKS | | | | 9,27,447 | 1,451 | 9,28,898 | | |
| 43. M. W. AND NAVIGATION, PROVINCIAL | | | | 7,89,907 | ... | 7,89,907 | | |

(a). Share of accounts excluded from 1912-13.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Upper Sutlej Inundation Canal Project.

No. 3—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| RECEIPTS. | IMPERIAL. | | | CHARGES. | IMPERIAL. | | |
|--|-------------|----------|-------------|--|--------------|----------|-------------|
| | Previous. | 1916-17. | Total. | | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | | Rs. | Rs. | Rs. |
| Occupiers' rate ... | 84,16,112 | 3,78,069 | 87,93,181 | 1 A.—EXTENSIONS AND IMPROVEMENTS. | | | |
| Owners' rates on irrigated land. | 17,732 | .. | 17,732 | 2.—MAIN CANAL AND BRANCHES. | 4,26,653 | 4,408 | 4,24,961 |
| Sales of water ... | 3,038 | 70 | 3,108 | 3.—DISTRIBUTARIES ... | 1,74,432 | 9,520 | 1,83,952 |
| Receipts from Plantations | 1,24,716 | 5,078 | 1,29,794 | 4.—DRAINAGE AND PROTECTIVE WORKS. | 1,158 | .. | 1,158 |
| Receipts from other Canal produce. | 76,280 | 312 | 76,592 | TOTAL I.A. | 5,06,143 | 13,928 | 6,10,071 |
| Rent of Buildings ... | 5,989 | 1,254 | 6,953 | I.B. MAINTENANCE AND REPAIRS. | | | |
| Fines ... | 2,25,085 | 60 | 2,25,141 | 1.—HEAD WORKS ... | 10,370 | .. | 10,370 |
| Miscellaneous and other Receipts. | 23,436 | 5,169 | 31,618 | 2.—MAIN CANAL AND BRANCHES. | 17,68,593 | 2,09,214 | 49,77,807 |
| Contribution .. | 22,435 | .. | 22,435 | 3.—DISTRIBUTARIES .. | 8,79,220 | 48,290 | 9,27,510 |
| Total ... | 99,12,022 | 3,93,036 | 93,05,458 | TOTAL I.B. ... | 50,63,201 | 2,57,504 | 59,16,705 |
| Share of Land Revenue collected in the Civil Department. | 74,81,006 | 2,10,100 | 77,04,000 | I.C.—COMPENSATION | 8,695 | .. | 8,695 |
| Interest on sale-proceeds of waste lands benefited. | 84,032 | 5,908 | 89,700 | II.—ESTABLISHMENT. | | | |
| Total .. | 75,78,038 | 2,16,008 | 77,04,000 | 5.—DIRECTION AND ACCOUNT. | (a) 6,93,341 | 12,798 | 7,48,139 |
| | | | | 6.—EXECUTIVE ESTABLISHMENT. | 22,08,762 | 76,213 | 22,84,975 |
| | | | | 7.—MEDICAL DO. .. | 30,039 | 1,506 | 40,845 |
| | | | | 7A.—REFRIG. DO. .. | 13,22,400 | 6150,800 | 13,78,272 |
| | | | | TOTAL .. | 42,05,000 | 1,47,023 | 44,13,231 |
| | | | | III. TOOLS AND PLANT | | | |
| | | | | 1.—SCIENTIFIC INSTRUMENTS. | 222 | 103 | 625 |
| | | | | 2.—PLANTS AND MACHINERY. | .. | .. | .. |
| | | | | 3.—TOOLS .. | 848 | 229 | 1,077 |
| | | | | 4.—NAVIGATION PLANT .. | 916 | .. | 916 |
| | | | | 5.—CAMP EQUIPMENT .. | 40 | 35 | 75 |
| | | | | 6.—LIVE STOCK .. | .. | .. | .. |
| | | | | 7.—OFFICE FURNITURE .. | 694 | —47 | 647 |
| | | | | 8.—REPAIRS AND CARRIAGE | 25,740 | 1,000 | 20,806 |
| | | | | MISCELLANEOUS .. | 45,210 | —7 | 40,209 |
| | | | | TOTAL ... | 74,662 | 1,070 | 76,358 |
| | | | | IV.—REFUNDS OF REVENUE. | 25,591 | 210 | 25,804 |
| | | | | V PROFIT AND LOSS | 379 | .. | 379 |
| | | | | TOTAL ... | 1,00,29,802 | 4,20,911 | 1,10,50,243 |
| | | | | Indirect charges debitable to Revenue Account as per Account No 5. | 6,00,300 | 20,067 | 6,80,607 |
| | | | | TOTAL CHARGES .. | 1,12,96,002 | 4,41,006 | 1,17,57,210 |
| | | | | Balance, Not Revenue .. | 51,97,956 | 1,87,396 | 23,03,364 |
| TOTAL RECEIPTS .. | 1,04,91,560 | 6,06,004 | 1,71,00,564 | GRAND TOTAL ... | 1,64,91,560 | 6,06,004 | 1,71,00,564 |

(a). Share of accounts excluded from 1912-13.

(b). Includes Rs. 10,288 on account of fees for collection of Revenue.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Upper Sutlej Inundation Project.

No. 4.—INTEREST ACCOUNT FOR AND TO END OF 1916-17.

| | Amount. | | Amount. |
|---|------------|---|-----------|
| | Rs. | | Rs. |
| Total Interest charges to end of 1916-16 .. | 21,05,531 | Net Revenue realized to end of 1916-16 .. | 51,05,968 |
| Do. for the year 1916-17. | | Do. during 1916-17 .. | 1,47,396 |
| Total outlay to 31st March 1917=Rs. 17,18,805. | | | |
| Less, half outlay during 1916-17 .. | 726 | | |
| Mean capital at charge .. | 17,18,079. | | |
| Interest at 3.2864 per cent | 56,634 | | |
| Total Interest charges .. | 22,23,165 | | |
| Balance Revenue after defraying Interest charges .. | 31,40,189 | | |
| Total .. | 53,63,354 | Total .. | 53,63,354 |

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| Particulars | Previous. | 1916-17. | Total. |
|---|-----------|----------|----------|
| | Rs. | Rs. | Rs. |
| CAPITAL— | | | |
| Capitalization of abatement of Land Revenue | 58,032 | ... | 58,032 |
| Leave and Pension Allowances | 42,094 | 14 | 42,008 |
| Total | 1,01,027 | 14 | 1,01,011 |
| REVENUE— | | | |
| Capitalization abatement of Land Revenue | 10,648 | ... | 10,648 |
| Leave and Pension Allowances | 6,55,052 | 29,067 | 6,76,319 |
| Total | 6,65,500 | 29,081 | 6,86,967 |

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE

| PARTICULARS. | CHARGES AGAINST CLOSED SANCTIONS. | | | CURRENT SANCTIONS. | | | Total charges to date against old and current sanctions. |
|---|---|--|-----------|--------------------|--------------------------------|------------------------------|--|
| | Expenditure against Construction Estimate | Expenditure against open canal sanctions | Total | Charges to date. | Amount of Sanctioned Estimate. | Unspent Balance of Estimate. | |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| DIRECT CHARGES— | | | | | | | |
| Works | 10,07,701 | 3,68,474 | 13,76,235 | ... | ... | — | 13,76,235 |
| Establishment | 2,24,759 | 70,453 | 2,95,212 | ... | ... | ... | 2,95,212 |
| Tools and Plant | 20,068 | 4,019 | 24,087 | ... | ... | ... | 24,087 |
| So-pense Balance | ... | ... | ... | 22,827 | ... | —22,827 | 22,827 |
| Total | 12,52,528 | 4,42,946 | 16,95,474 | 22,827 | ... | —22,827 | 17,18,805 |
| Less Receipts on Capital Account | 150 | ... | 150 | ... | ... | ... | 150 |
| Net Total | 12,52,431 | 4,43,616 | 16,95,978 | 22,827 | ... | —22,827 | 17,18,805 |
| INDIRECT CHARGES— | | | | | | | |
| Capitalized abatement of Land Revenue | 58,031 | 4,352 | 58,033 | ... | ... | ... | 58,033 |
| Leave and Pension Allowances | 33,148 | 9,860 | 43,008 | ... | ... | ... | 43,008 |
| Total | 86,929 | 14,212 | 1,01,041 | ... | ... | ... | 1,01,041 |
| GRAND TOTAL | 13,30,701 | 4,57,290 | 17,97,019 | 22,827 | ... | —22,827 | 18,10,846 |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Siddhali Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEAD OF ACCOUNT. | DIRECT CHARGES. | | | Cost of construction now estimated (Construction Estimate closed on 31st March 1892.) | Expenditure against closed Estimates |
|--------------------------------|-----------------|----------|----------|---|--------------------------------------|
| | Imperial. | | | | |
| | Previous. | 1916-17. | Total. | | |
| | Rs. | Rs. | Rs. | Rs. | Rs. |
| I.—WORKS. | | | | | |
| HEAD WORKS— | | | | | |
| A.—Preliminary Expenses | 754 | ... | 754 | | |
| B.—Land | 236 | ... | 236 | | |
| C.—Works | 2,46,260 | ... | 2,46,260 | | |
| K.—Buildings | 11,646 | ... | 11,646 | | |
| O.—Miscellaneous | 391 | ... | 391 | | |
| Total | 2,59,286 | ... | 2,59,286 | | |
| 2.—MAIN CANAL AND BRANCHES— | | | | | |
| A.—Preliminary Expenses | 4,014 | ... | 4,014 | | |
| B.—Land | 22,422 | ... | 22,422 | | |
| D.—Regulators | 49,568 | ... | 49,568 | | |
| G.—Bridges | 44,980 | ... | 44,980 | | |
| K.—Buildings | 80,789 | ... | 80,789 | | |
| L.—Earthwork | 2,58,996 | ... | 2,58,996 | | |
| M.—Plantations | 821 | ... | 821 | | |
| O.—Miscellaneous | 427 | ... | 427 | | |
| P.—Maintenance | 5,394 | ... | 5,394 | | |
| TOTAL | 4,07,411 | ... | 4,07,411 | | |
| 3. DISTRIBUTARIES— | | | | | |
| A.—Preliminary Expenses | 3,965 | ... | 3,965 | | |
| B.—Land | 11,388 | ... | 11,387 | | |
| C.—Works | 66,622 | ... | 66,622 | | |
| L.—Earthwork | 1,36,784 | ... | 1,36,784 | | |
| O.—Miscellaneous | 165 | ... | 165 | | |
| TOTAL | 2,18,923 | ... | 2,18,923 | | |

OFFICE OF ACCOUNTANT-GENERAL.
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Sidhna Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEAD OF ACCOUNT | DIRECT CHARGES | | | Cost of construction as now estimated (Construction Estimate closed on 31st March 1892.) | Expenditure against closed Estimates. |
|-------------------------------------|----------------|----------|------------|--|---------------------------------------|
| | Imperial. | | | | |
| | Previous. | 1916-17. | Total. | | |
| | Rs. | Rs. | | Rs. | Rs. |
| 4. DRAINAGE AND PROTECTIVE WORKS— | | | | | |
| A.—Preliminary Expenses | 36 | ... | 36 | | |
| TOTAL | 36 | ... | 36 | | |
| TOTAL I.—WORKS | 9,45,656 | ... | 9,45,656 | 9,45,656 | 9,45,656 |
| II.—ESTABLISHMENT. | | | | | |
| 5. DIRECTION | 49,445 | 57 | (a) 49,502 | | |
| 6. EXECUTIVE | 2,14,741 | ... | 2,14,741 | | |
| 7. MEDICAL | | | | | |
| TOTAL | 2,64,146 | 57 | 2,64,243 | 2,64,243 | 2,64,243 |
| III.—TOOLS AND PLANT | | | | | |
| 12. MISCELLANEOUS | 35,039 | .. | 35 039 | | |
| 13. REPAIRS AND CARRIAGE | | | | | |
| TOTAL | 35,039 | ... | 35,039 | 35,039 | 35,039 |
| IV.—SUSPENSE ACCOUNT | | | | | |
| 14. STOCK PURCHASES | 102 | —1,104 | —1,210 | | |
| 15. STOCK SALES | 35 | 699 | 725 | | |
| 16. MISCELLANEOUS ADVANCES | 155 | 676 | 861 | | |
| 17. STOCK | 42,958 | 4,207 | 47,175 | | |
| TOTAL | 43,049 | 4 461 | 47,511 | | |
| GRAND TOTAL | 12,90,668 | 4,521 | 12 95 489 | 13,47,938 | 12,47,938 |
| V.—Less RECEIPTS ON CAPITAL ACCOUNT | 224 | .. | 224 | 224 | 224 |
| Net Total | 12,90,744 | 4,521 | 12 95 265 | 12,47,714 | 12,47,714 |
| APPORTIONMENT. | | | | | |
| 49.—IRRIGATION WORKS | 12,72,133 | 4,521 | 12 76 654 | | |
| 43.—M. W. AND NAVIGATION | 18,306 | .. | 18 306 | | 0 |
| IMPERIAL | | | | | |
| PROVINCIAL | | | | | |

(a). Excluding share of accounts commencing from 1912-13.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Sikhni Canal Project.

No. 3—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| RECEIPTS. | IMPERIAL. | | | CHARGE. | IMPERIAL. | | |
|--|--------------------|-----------------|--------------------|---|--------------------|-----------------|--------------------|
| | Previous | 1916-17. | Total | | Previous | 1916-17. | Total |
| | Rs. | Rs. | Rs. | | Rs. | Rs. | Rs. |
| Occupiers' rates ... | 90,30,604 | 4,64,104 | 94,94,708 | I A—EXTENSIONS AND IMPROVEMENTS | | | |
| | | | | 1.—HEAD WORKS .. | 29,480 | 1,870 | 31,350 |
| | | | | 2.—MAIN CANAL AND BRANCHES .. | 1,72,502 | 4,021 | 1,76,523 |
| | | | | 3.—DISTRIBUTARIES .. | 75,711 | 5,108 | 80,817 |
| Sales of water ... | 42,631 | 2,157 | 44,788 | 4.—DRAINAGE AND PROTECTIVE WORKS .. | 508 | ... | 508 |
| | | | | TOTAL I A | 2,78,181 | 11,000 | 2,89,187 |
| | | | | I B—MAINTENANCE AND REPAIRS | | | |
| Receipts from Plantations | 5,726 | 257 | 5,983 | 1.—HEAD WORKS ... | 3,31,308 | 9,418 | 3,40,721 |
| | | | | 2.—MAIN CANAL AND BRANCHES .. | 8,08,268 | 24,382 | 8,32,650 |
| Receipts from other Canal produce. | 8,780 | 257 | 9,037 | 3.—DISTRIBUTARIES .. | 5,18,511 | 10,578 | 5,29,089 |
| | | | | TOTAL I B | 17,48,087 | 51,373 | 18,02,460 |
| | | | | I C—COMPENSATION | 231 | .. | 231 |
| Rent of buildings ... | 18,783 | 212 | 19,000 | II—ESTABLISHMENT | | | |
| | | | | 5.—DIRECTOR AND ACCOUNT | (a) 1,45,477 | 4,831 | 1,50,308 |
| Fines ... | 7,321 | 345 | 7,666 | 6.—EXECUTIVE ESTABLISHMENT | 7,50,550 | 30,375 | 7,80,925 |
| | | | | 7.—MEDICAL ESTABLISHMENT | 17,107 | 1,742 | 18,849 |
| Miscellaneous and other Receipts | 13,693 | 1,367 | 15,060 | 9.—REVENUE ESTABLISHMENT | 0,00,737 | 33,117 | 33,854 |
| | | | | TOTAL .. | 15,50,210 | 70,081 | 16,20,274 |
| | | | | III—TOOLS AND PLANT | | | |
| | | | | 1.—SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS | 298 | 250 | 548 |
| | | | | 2.—PLANT AND MACHINERY | 218 | 73 | 291 |
| Total | 91,27,406 | 4,56,770 | 95,84,176 | 3.—TOOLS .. | ... | 120 | 120 |
| | | | | 4.—NAVIGATION PLANT .. | 101 | 375 | 476 |
| | | | | 5.—CAMP EQUIPAGE .. | ... | 221 | 221 |
| Share of Land Revenue collected in the Civil Department. | 16,16,175 | 1,10,461 | 17,26,636 | 6.—LIVY STOCK .. | ... | ... | ... |
| | | | | 7.—OFFICE FURNITURE .. | 280 | 188 | 468 |
| | | | | 8.—VEHICLES AND CARRIAGE .. | 40,162 | 2,537 | 42,699 |
| | | | | 12.—MISCELLANEOUS .. | 21,844 | —600 | 21,244 |
| | | | | TOTAL .. | 53,283 | 3,600 | 56,883 |
| Interest on sale-proceeds of waste lands benefited | 3,21,761 | 20,853 | 3,42,614 | IV.—REFUNDS OF REVENUE | | | |
| | | | | 1.—... | 1,500 | 371 | 1,871 |
| | | | | TOTAL .. | 30,31,568 | 1,48,317 | 31,79,885 |
| | | | | Indirect Charges debitable to Revenue Account as per Account No. 5. | 2,17,314 | 11,060 | 2,28,374 |
| Total | 19,40,239 | 1,31,344 | 20,71,583 | TOTAL CHARGES | 38,48,882 | 1,59,386 | 40,08,268 |
| | | | | Balance, Not Revenue .. | 72,18,853 | 1,30,737 | 73,49,590 |
| TOTAL RECEIPTS | 1,10,67,736 | 5,00,123 | 1,15,67,859 | GRAND TOTAL | 1,10,67,728 | 5,00,123 | 1,15,67,851 |

(a). Share of Account, excluded from III 12-13.

(b). Includes Rs 5,440 on account of fees for collection of Revenue

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Sidhna Canal Project.

No 4—INTEREST ACCOUNT FOR AND TO END OF 1916-17

| | Amount. | | Amount. |
|---|-----------|--|-----------|
| | Rs. | | Rs. |
| Total Interest charges to end of 1916-16 ... | 12,85,333 | Net Revenue realized to end of 1916-16 ... | 72,18,852 |
| Do for the year 1916-17 .. | - | Do during 1916-17 ... | 4,30,737 |
| Total outlay up to 31st March 1917 = Rs. 12,85,265 | - | | |
| Less half outlay during 1916-17 .. | 2,209 | | |
| Mean Capital at charge .. | 12,83,056 | | |
| Interest at 3'296½ per cent ... | 42,023 | | |
| Total .. | 13,27,956 | | |
| Balance Revenue after defraying Interest charges .. | 63,21,634 | | |
| Total .. | 76,49,590 | Total .. | 76,49,590 |

No 5—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| PARTICULARS. | Previous | 1916-17. | Total. |
|--|----------|----------|----------|
| | Rs. | Rs. | Rs. |
| CAPITAL— | | | |
| Capitalization of abatement of Land Revenue .. | 3,328 | ... | 3,328 |
| Leave and Pension Allowances ... | 36,899 | 8 | 36,897 |
| Total .. | 40,217 | 8 | 40,225 |
| REVENUE — | | | |
| Capitalization of abatement of Land Revenue .. | 285 | ... | 285 |
| Leave and Pension Allowances .. | 2,17,029 | 11,069 | 2,28,098 |
| Total .. | 2,17,314 | 11,069 | 2,28,383 |
| GRAND TOTAL .. | 2,57,531 | 11,077 | 2,68,608 |

No 6—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

| PARTICULARS | CHARGES AGAINST CLOSED SANCTIONS | | | CURRENT SANCTIONS. | | | Total charges to date against old and current sanctions | REMARKS. |
|--|---|--|-----------|--------------------|-------------------------------|------------------------------|---|----------|
| | Expenditure against Construction Estimate | Expenditure against open canal sanctions | Total | Charges to date. | Amount of Sanctioned Estimate | Unspent Balance of Estimate. | | |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| DIRECT CHARGES— | | | | | | | | |
| Works .. | 7,91,204 | 2,44,452 | 9,45,656 | ... | ... | ... | 9,45,656 | |
| Establishment .. | 2,04,893 | 50,140 | 2,54,243 | ... | ... | ... | 2,54,243 | |
| Tools and Plant ... | 22,253 | 15,786 | 38,039 | ... | ... | ... | 38,039 | |
| Suspense Balance .. | ... | ... | ... | 47,551 | ... | —47,551 | 47,551 | |
| TOTAL ... | 9,28,200 | 3,19,678 | 12,47,938 | 47,551 | ... | —47,551 | 12,95,480 | |
| Less Receipts on Capital Account. | 224 | ... | 224 | ... | ... | ... | 224 | |
| NET TOTAL ... | 9,28,936 | 3,19,678 | 12,47,714 | 47,551 | ... | —47,551 | 12,95,205 | |
| INDIRECT CHARGES— | | | | | | | | |
| Capitalized abatement of Land Revenue— | 2,991 | 334 | 3,328 | ... | ... | ... | 3,328 | |
| Leave and Pension Allowances. | 28,576 | 8,321 | 36,897 | ... | ... | ... | 36,897 | |
| TOTAL ... | 31,570 | 8,655 | 40,225 | ... | ... | ... | 40,225 | |
| GRAND TOTAL ... | 9,59,606 | 3,28,333 | 12,87,939 | 47,551 | ... | —47,551 | 13,35,490 | |

IRRIGATION BRANCH.

OFFICE OF ACCOUNTANT-GENERAL,

PUNJAB PROVINCE.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Lower Jhelum Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNT | DIRECT CHARGES. | | | Cost of construction as now estimated. | Expenditure against these Estimates. |
|---|-----------------|----------|-----------|--|--------------------------------------|
| | Imperial. | | | | |
| | Previous. | 1916-17. | Total. | | |
| | Rs. | Rs. | Rs. | Rs. | Rs. |
| 1.—WORKS. | | | | | |
| 1.—HEAD WORKS— | | | | | |
| A.—Preliminary Expenses | 12,619 | ... | 12,619 | ... | |
| B.—Land | 31,772 | ... | 31,772 | ... | |
| C.—Works | 29,70,571 | —210 | 29,70,361 | .. | |
| K.—Buildings | 1,28,078 | 2,111 | 1,31,089 | ... | |
| O.—Miscellaneous | 10,273 | . | 10,273 | ... | |
| P.—Maintenance | 28,020 | .. | 28,020 | .. | |
| TOTAL | 31,91,233 | 1,901 | 31,93,134 | .. | |
| 2.—MAIN CANAL AND BRANCHES— | | | | | |
| A.—Preliminary Expenses | 93,230 | 203 | 93,623 | ... | |
| B.—Land | 2,49,781 | .. | 2,49,781 | ... | |
| D.—Regulators | 2,71,286 | .. | 2,71,286 | ... | |
| E.—Falls and Weirs | 2,34,947 | .. | 2,34,947 | .. | |
| F.—(1)—Other Cross Drainage Works | 1,20,258 | ... | 1,20,258 | ... | |
| G.—Bridges | 6,91,284 | ... | 6,91,284 | .. | |
| H.—Escapes | 4,78,540 | ... | 4,78,540 | ... | |
| J.—Mills | 1,07,620 | ... | 1,07,620 | ... | |
| K.—Buildings | 10,30,547 | 7,871 | 10,38,418 | .. | |
| L.—Earthwork | 22,03,007 | . | 22,03,007 | ... | |
| M.—Plantations | 86,170 | ... | 86,170 | ... | |
| O.—Miscellaneous | 46,624 | 833 | 46,457 | ... | |
| P.—Maintenance | 32,373 | ... | 32,373 | ... | |
| TOTAL | 57,34,076 | 8,907 | 57,43,073 | ... | |
| 3.—DISTRIBUTARIES— | | | | | |
| A.—Preliminary Expenses | 61,101 | ... | 61,101 | ... | |
| B.—Land | 1,40,709 | ... | 1,40,709 | ... | |
| C.—Works | 15,26,458 | 9,860 | 15,36,318 | ... | |
| L.—Earthwork | 13,37,876 | 1,400 | 13,39,276 | ... | |
| O.—Miscellaneous | 5,69,711 | —2,171 | 5,67,540 | ... | |
| P.—Maintenance | 4,003 | ... | 4,003 | ... | |
| TOTAL | 30,36,517 | 9,179 | 30,45,696 | .. | |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Lower Jhelum Canal Project.

No. 2—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNT. | DIRECT CHARGES. | | | Cost of construction as now estimated. | Expenditure against closed Estimates. |
|-------------------------------------|-----------------|----------|-------------|--|---------------------------------------|
| | Imperial. | | | | |
| | Previous. | 1916-17. | Total. | | |
| | Rs. ° | Ra | Ra. | Ra. | Ra. |
| 4.—DRAINAGE AND PROTECTIVE WORKS— | 21,355 | .. | 21,355 | .. | |
| A.—Preliminary Expenses | | | | | |
| B.—Land | 13,635 | .. | 13,635 | .. | |
| C.—Works | 2,884 | .. | 2,884 | .. | |
| L.—Earthwork | 52,353 | .. | 52,353 | .. | |
| O.—Miscellaneous | 1,759 | .. | 1,759 | .. | |
| TOTAL .. | 91,990 | .. | 91,990 | .. | |
| TOTAL I.—WORKS .. | 1,20,54,410 | 20,077 | 1,20,74,487 | 1,48,95,807 | |
| II.—ESTABLISHMENT. | | | | | |
| 5.—DIRECTION | 6,01,514 | 897 | 5,02,411 | .. | |
| 6.—EXECUTIVE | 15,13,366 | 3,360 | 15,10,762 | .. | |
| 7.—MEDICAL | 20,613 | .. | 20,613 | .. | |
| 8.—SPECIAL SURVEY | 42,062 | .. | 42,062 | .. | |
| TOTAL .. | 21,50,675 | 4,257 | 21,50,865 | 22,30,200 | |
| III.—TOOLS AND PLANT. | | | | | |
| 9.—NAVIGATION PLANT | 50 | .. | 50 | .. | |
| 12.—MISCELLANEOUS | 3,00,041 | 299 | 3,00,340 | .. | |
| 13.—REPAIRS AND CARRIAGE | 62,506 | .. | 62,506 | .. | |
| TOTAL .. | 3,62,047 | 299 | 3,62,356 | 4,22,715 | |
| IV.—SUSPENSE ACCOUNT. | | | | | |
| 14.—Stock | 4,12,553 | —31,745 | 3,80,808 | .. | |
| 15.—Stock PURCHASES | —2,218 | —1,423 | —3,641 | .. | |
| 15a.—Stock SALES | 5 | 52 | 57 | .. | |
| 16.—MISCELLANEOUS ADVANCES | 3,115 | —2,590 | 525 | .. | |
| 18.—LONDON STORES | .. | .. | .. | .. | |
| TOTAL .. | 4,13,455 | —33,706 | 3,77,749 | 2,00,000 | |
| GRAND TOTAL .. | 1,5,17,103 | —11,017 | 1,50,00,056 | 1,84,55,782 | |
| V.—LESS RECEIPTS ON CAPITAL ACCOUNT | 40,162 | 22,147 | 62,000 | 60,000 | |
| NET TOTAL .. | 1,55,76,641 | —33,194 | 1,55,43,447 | 1,83,95,782 | |
| APPORTIONMENT. | | | | | |
| 49.—IRRIGATION WORKS | 1,55,76,641 | —33,194 | 1,55,43,447 | .. | |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Lower Jhelum Canal Project.

Mo. 3.—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| RECEIPTS. | IMPERIAL. | | | CHARGES. | IMPERIAL. | | |
|--|-------------|-----------|-------------|---|-------------|-----------|--------------|
| | Previous. | 1916-17. | Total. | | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | | Rs. | Rs. | Rs. |
| Occupiers' rates .. | 2,33,10,687 | 20,10,110 | 2,62,20,806 | I A.—EXTENSIONS AND IMPROVEMENTS. | | | |
| Sales of water .. | 96,800 | 10,082 | 1,06,882 | 1.—HEAD WORKS | 4,40,021 | 32,933 | 4,86,954 |
| Supply of towns .. | 4,054 | 1,282 | 5,336 | 2.—MAIN CANAL AND BRANCHES. | 1,76,031 | 7,882 | 1,82,913 |
| Receipts from Plantations | 23,850 | 4,216 | 31,806 | 3.—DISTRIBUTARIES | 2,31,679 | 24,337 | 2,56,016 |
| Receipts from other Canal produce | 9,115 | 943 | 10,058 | 4.—DRAINAGE AND PROTECTIVE WORKS | 3,987 | 2,310 | 6,297 |
| Water power .. | 1,56,504 | 32,977 | 1,89,481 | TOTAL I A. | 8,59,778 | 72,462 | 9,32,240 |
| Rent of Buildings .. | 87,011 | 5,710 | 92,721 | I B.—MAINTENANCE AND REPAIRS. | | | |
| Fines .. | 10,824 | 400 | 11,320 | 1.—HEAD WORKS | 6,26,561 | 99,351 | 7,25,922 |
| Miscellaneous and other Receipts. | 1,02,902 | 8,159 | 1,11,061 | 2.—MAIN CANAL AND BRANCHES. | 18,76,108 | 98,843 | 10,74,951 |
| Total .. | 2,38,69,497 | 21,74,283 | 2,67,80,778 | 3.—DISTRIBUTARIES | 17,00,374 | 92,944 | 17,93,298 |
| | | | | 4.—DRAINAGE AND PROTECTIVE WORKS | 65,873 | 3,457 | 69,321 |
| | | | | TOTAL I B. | 42,08,865 | 2,04,535 | 45,03,400 |
| | | | | I C.—COMPENSATION | 5,947 | ... | 5,947 |
| | | | | II.—ESTABLISHMENT. | | | |
| | | | | 5.—DIRECTION AND ACCOUNT | 4,50,780 | 56,251 | (b) 5,07,067 |
| | | | | 6.—EXECUTIVE ESTABLISHMENT. | 19,14,332 | 2,26,343 | 21,40,675 |
| | | | | 7.—MEDICAL Do .. | 1,17,664 | 12,757 | 1,30,421 |
| | | | | 7A.—REVENUE Do .. | 21,77,446 | 2,05,626 | 23,83,080 |
| | | | | TOTAL .. | 46,60,226 | 5,01,017 | 51,61,243 |
| | | | | III.—TOOLS AND PLANT | | | |
| | | | | (1). SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS | 1,130 | 3,194 | 4,322 |
| | | | | (2). PLANTS AND MAINTENANCE | 135 | 32,714 | 32,879 |
| | | | | (3). TOOLS .. | 2,121 | 1,722 | 3,843 |
| | | | | (4). NAVIGATION PLANTS | .. | 536 | 536 |
| | | | | (5). CAMP EQUIPMENT .. | 45 | 29 | 204 |
| | | | | (6). LIVE STOCK .. | 708 | .. | 70 |
| | | | | (7). OFFICE FURNITURE | 1,034 | 2,177 | 3,211 |
| | | | | (8). MISCELLANEOUS | 49,178 | 729 | 45,447 |
| | | | | (9). REPAIRS AND CARRIAGE. | 89,034 | 5,854 | 94,888 |
| | | | | Total .. | 1,40,351 | 46,706 | 1,86,000 |
| | | | | IV.—REFUNDS OF REVENUE | 4,813 | 373 | 10,186 |
| | | | | V.—PROFIT AND LOSS | | | |
| | | | | TOTAL .. | 20,11,573 | 9,14,193 | 1,06,61,066 |
| | | | | Indirect Charges attributable to Revenue Account as per Account No 3. | 6,53,397 | 70,142 | 7,23,149 |
| | | | | Total Charges .. | 1,05,98,180 | 9,54,335 | 1,18,52,516 |
| | | | | Balance, Not Revenue .. | 2,17,27,414 | 37,51,081 | 2,64,82,045 |
| | | | | GRAND TOTAL .. | 3,23,25,594 | 17,38,916 | 3,70,64,560 |
| Share of Land Revenue collected in the Civil Department. | 78,64,632 | 16,06,404 | 95,05,036 | | | | |
| Interest on sale proceeds of waste lands benefited. | 6,50,460 | 68,276 | 7,18,736 | | | | |
| Total .. | 85,19,099 | 17,64,983 | 1,02,83,782 | | | | |
| TOTAL RECEIPTS .. | 3,23,25,594 | 47,18,900 | 3,70,64,560 | | | | |

(a) Includes Rs. 84,894 on account of fees for collection of Revenue.

(b) Excludes Share of accounts commencing from 1912-13.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Lower Jhelum Canal Project.

No. 4.—INTEREST ACCOUNT FOR AND TO END OF 1916-17.

| | Amount. | | Amount. |
|---|-------------|--|-------------|
| | Rs. | | Rs. |
| Total Interest charges to end of 1916-16 ... | 78,60,793 | Net Revenue realised to end of 1915-16 ... | 2,17,27,614 |
| Do. for the year 1916-17 .. | | Do. during 1916-17 .. | 37,84,631 |
| Total outlay to end of 31st March 1917 ... | 1,55,43,447 | | |
| Deduct half outlay during 1916-17 .. | —16,597 | | |
| Mean Capital at charge .. | 1,55,60,044 | | |
| Interest at 3.2964 per cent ... | 5,12,921 | | |
| Total .. | 83,63,714 | | |
| Balance Revenue after defraying Interest charges .. | 1,71,18,331 | | |
| Total .. | 2,64,82,045 | Total .. | 2,64,82,045 |

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| PARTICULARS. | Previous. | 1916-17. | Total. |
|---|-----------|----------|-----------|
| | Rs. | Rs. | Rs. |
| CAPITAL— | | | |
| Capitalization of abatement of Land Revenue .. | 83,000 | ... | 83,000 |
| Leave and Pension Allowances .. | 3,06,121 | 600 | 3,06,721 |
| Total .. | 3,89,121 | 600 | 3,89,721 |
| REVENUE— | | | |
| Capitalization of abatement of Land Revenue ... | 875 | .. | 875 |
| Leave and Pension Allowances .. | 6,52,132 | 70,142 | 7,22,574 |
| Total .. | 6,53,307 | 70,142 | 7,23,449 |
| GRAND TOTAL | 10,42,428 | 70,742 | 11,13,170 |

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

| PARTICULARS. | CHARGES AGAINST CLOSED SANCTIONS. | | | CURRENT SANCTIONS | | | Total charges to date, against old and current sanctions. | REMARKS. |
|--|--|---|-------|-------------------|--------------------------------|------------------------------|---|----------|
| | Expenditure against Construction Estimate. | Expenditure against open canal sanctions. | Total | Charges to date | Amount of sanctioned Estimate. | Unspent Balance of Estimate. | | |
| | | | | Rs. | Rs. | Rs. | Rs. | |
| DIRECT CHARGES— | | | | | | | | |
| Works .. | | | | 1,26,74,493 | 1,48,95,897 | 22,21,314 | 1,26,74,493 | |
| Establishment .. | | | | 21,00,858 | 20,30,280 | 7,39,402 | 21,00,858 | |
| Tools and Plant .. | | | | 3,62,956 | 4,29,716 | 66,769 | 3,02,886 | |
| Surplus Balance .. | | | | 3,77,749 | 2,00,000 | —1,77,749 | 3,77,749 | |
| Total .. | | | | 1,56,06,056 | 1,84,55,782 | 28,49,726 | 1,56,06,056 | |
| Less Receipts on Capital Account .. | | | | 62,609 | 60,000 | —2,609 | 62,609 | |
| Net Total .. | | | | 1,55,43,447 | 1,83,95,782 | 28,52,336 | 1,55,43,447 | |
| IRRIGATION CHARGES— | | | | | | | | |
| Capitalized abatement of Land Revenue .. | | | | 83,000 | 1,57,803 | 74,803 | 83,000 | |
| Leave and Pension Allowances .. | | | | 3,06,721 | 4,10,348 | 1,03,622 | 3,06,721 | |
| Total .. | | | | 3,89,721 | 5,68,200 | 1,78,485 | 3,89,721 | |
| GRAND TOTAL .. | | | | 1,59,33,166 | 1,89,63,988 | 30,30,821 | 1,59,33,166 | |

(a). Includes Rs. 2,05,933 actual direct expenditure on Shahpur Imperial Canal.

(b). Includes Rs. 998 on account of indirect expenditure on Shahpur Imperial Canal.

Both the above will be transferred to the debit of this project on completion of the Shahpur Branch of the Lower Jhelum Canal, vide Secretary, P. W. D., Irrigation Branch, Punjab No. 056-A. 1., dated 7th June 1905.

(c). Revised project estimate sanctioned in Secretary of State's Despatch No. 5, dated 10th February 1905.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Indus Inundation Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNT | DIRECT CHARGES. | | | Cost of construction as now estimated (Construction Estimate closed on 31st March 1904) | Expenditure against closed Estimate. |
|------------------------------------|-----------------|----------|-----------|---|--------------------------------------|
| | Imperial. | | | | |
| | Previous | 1916-17. | Total | | |
| | Rs. | Rs. | Rs. | Rs. | Rs. |
| 1.—WORKS. | | | | | |
| 2. MAIN CANAL AND BRANCHES— | | | | | |
| A.—Preliminary Expenses | 9,321 | .. | 9,321 | | |
| B.—Land | 49,157 | 4,000 | 53,157 | | |
| D.—Regulators | 77,205 | .. | 77,205 | | |
| E.—Falls and Weirs | 34,956 | .. | 34,956 | | |
| F.—River and Hill Torrent Works .. | 402 | .. | 402 | | |
| G.—Bridges | 46,971 | .. | 46,971 | | |
| H.—Escapes | 14,031 | .. | 14,031 | | |
| K.—Buildings | 1,49,097 | .. | 1,49,097 | | |
| L.—Earthwork | 13,52,682 | .. | 13,52,682 | | |
| O.—Miscellaneous | 24,574 | 14 | 24,588 | | |
| Total .. | 17,58,428 | 4,020 | 17,62,448 | | |
| 3. DISTRIBUTARIES— | | | | | |
| A.—Preliminary Expenses | 3,987 | .. | 3,987 | | |
| B.—Land | 38,157 | .. | 38,157 | | |
| C.—Works | 64,603 | 5,163 | 72,766 | | |
| L.—Earthwork | 1,00,316 | 80 | 1,00,400 | | |
| O.—Miscellaneous | 8,535 | .. | 8,535 | | |
| Total .. | 3,05,598 | 5,252 | 3,13,851 | | |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Indus Inundation Canals Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNT. | DIRECT CHARGES. | | | Cost of construction as now estimated (Construction Estimate closed on 31st March 1894). | Expenditure against closed Estimates. |
|--|-----------------|----------|-----------|--|---------------------------------------|
| | Imperial. | | | | |
| | Previous | 1916-17. | Total. | | |
| | Rs. | Rs. | Rs. | Rs. | Rs. |
| 4. DRAINAGE AND PROTECTIVE WORKS— | | | | | |
| K.—Buildings | 1,613 | .. | 1,613 | | |
| L.—Earthwork | 3,13,076 | .. | 3,13,076 | | |
| TOTAL .. | 3,14,691 | .. | 3,14,691 | | |
| TOTAL I—WORKS .. | 24,06,719 | 12,272 | 24,20,991 | 24,16,457 | 22,87,678 |
| II.—ESTABLISHMENT | | | | | |
| 5. DIRECTION AND ACCOUNT | 1,11,728 | 119 | 1,11,847 | | |
| 6. EXECUTIVE | 2,45,901 | 44 | 2,46,537 | | |
| 7. MEDICAL | 507 | .. | 507 | | |
| TOTAL .. | 1,58,136 | 163 | 1,58,300 | 1,58,300 | 1,58,300 |
| III.—TOOLS AND PLANT. | | | | | |
| 12. MISCELLANEOUS | 25,033 | 39 | 25,072 | | |
| 13. REPAIRS AND CARRIAGE | .. | .. | .. | | |
| TOTAL .. | 25,033 | 39 | 25,072 | 25,072 | 23,421 |
| IV.—SUSPENSE ACCOUNT. | | | | | |
| 14. STOCK | 14,795 | —4,131 | 10,664 | | |
| 15. MISCELLANEOUS ADVANCES | 14 | —129 | 1 | | |
| 18. LONDON STORES | .. | .. | .. | | |
| TOTAL .. | 14,809 | —4,260 | 10,549 | | |
| GRAND TOTAL .. | 29,50,976 | 8,610 | 29,59,586 | 29,00,829 | 27,46,437 |
| V. Less RECEIPTS ON CAPITAL ACCOUNT | 14,616 | | 14,616 | 14,616 | 14,616 |
| NET TOTAL .. | 29,36,360 | 8,610 | 29,44,970 | 28,86,213 | 26,31,821 |
| APPORTIONMENT. | | | | | |
| 40. IRRIGATION WORKS | 21,70,847 | 8,610 | 21,79,457 | | |
| 43. M. W. AND NAVIGATION, IMPERIAL | 7,22,513 | .. | 7,22,513 | | |

(a) Share of account excluded from 1912-13.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Indus Inundation Canals Project.

No. 3—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| RECEIPTS. | IMPERIAL. | | | CHARGES. | IMPERIAL. | | |
|--|-------------|----------|-------------|--|--------------|------------|-------------|
| | Previous. | 1916-17. | Total. | | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | | Rs. | Rs. | Rs. |
| | | | | (I.A.)—EXPENSIONS AND IMPROVEMENTS. | | | |
| Occupiers' rates .. | 22,00,364 | 1,92,643 | 23,93,007 | 1.—MAIN CANAL AND BRANCHES. | 10,22,450 | 22,532 | 10,44,982 |
| Owners' rates on irrigated land. | 92,189 | .. | 92,189 | 2.—DISTRIBUTARIES .. | 69,593 | 3,351 | 72,944 |
| | | | | 3.—DRAINAGE AND PROTECTIVE WORKS. | 8,92,869 | 89,137 | 9,82,006 |
| Sales of water .. | 5,780 | 229 | 6,009 | TOTAL I. A. .. | 10,44,929 | 1,15,020 | 11,60,000 |
| Supply of towns .. | 1,419 | .. | 1,419 | (I.B.)—MAINTENANCE AND REPAIRS. | | | |
| Receipts of plantations | 1,26,132 | 2,327 | 1,28,459 | 1.—MAIN CANAL AND BRANCHES. | 65,16,561 | 99,360 | 66,15,921 |
| Govt. share of Dhundi Produce. | 10,50,787 | 50,911 | 11,01,698 | 2.—DISTRIBUTARIES .. | 2,95,397 | 17,705 | 3,13,102 |
| Receipts from other Canal Produce. | 4,376 | 25 | 4,401 | 3.—DRAINAGE WORKS .. | 19,34,812 | 20,281 | 19,55,093 |
| Rent of Buildings .. | .. | .. | .. | TOTAL I. B. .. | 77,46,760 | 1,17,346 | 78,64,106 |
| Fines .. | 64,442 | 2,901 | 67,343 | (I.C.)—COMPENSATION | 6,171 | 25 | 6,196 |
| Miscellaneous and other receipts. | .. | .. | .. | 11.—ESTABLISHMENT. | (a) 5,14,983 | 12,040 | 5,27,023 |
| Total .. | 35,15,554 | 2,54,899 | 37,70,453 | 12.—EXECUTIVE ESTABLISHMENT. | 24,42,680 | 84,161 | 25,26,841 |
| Contribution of Silt Clearance. | 4,14,934 | .. | 4,14,934 | 13.—MEDICAL ESTABLISHMENT. | 30,722 | 1,425 | 32,147 |
| Clearance Rate .. | 12,79,035 | .. | 12,79,035 | 14.—REVENUE ESTABLISHMENT. | 6,62,511 | (b) 27,071 | 6,89,582 |
| Total .. | 16,93,969 | .. | 16,93,969 | 15.—PLANTATION ESTABLISHMENT. | 5,916 | .. | 5,916 |
| Share of Land Revenue collected in the Civil Department. | 1,01,89,155 | 2,73,458 | 1,04,62,613 | TOTAL .. | 39,56,842 | 1,24,713 | 40,81,555 |
| Interest on sale proceeds of waste lands benefited | 40 | 2 | 42 | (III.—TOOLS AND PLANT) | | | |
| Total .. | 1,04,98,195 | 2,73,460 | 1,07,71,655 | 1.—SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS. | 61 | 100 | 161 |
| | | | | 2.—PLANTS & MACHINERY | .. | .. | .. |
| | | | | 3.—TOOLS. | 219 | —0 | 219 |
| | | | | 4.—NAVIGATION PLANT | 243 | .. | 243 |
| | | | | 5.—CART EQUIPAGE | 211 | .. | 211 |
| | | | | 6.—LIVE STOCK .. | .. | .. | .. |
| | | | | 7.—OFFICE FURNITURE | 204 | 300 | 504 |
| | | | | 8.—REPAIRS & CARRIAGE | 37,108 | 1,154 | 38,262 |
| | | | | MISCELLANEOUS .. | 37,974 | —30 | 37,944 |
| | | | | TOTAL .. | 72,171 | 1,518 | 73,689 |
| | | | | (IV.—REFUNDS OF REVENUE. | 4,871 | .. | 4,871 |
| | | | | V.—PROFIT AND LOSS | 1,589 | .. | 1,589 |
| | | | | TOTAL .. | 1,39,74,023 | 3,78,910 | 1,43,52,933 |
| | | | | Indirect Charges attributable to Revenue Account as per Account No. 5. | 6,58,512 | 10,085 | 6,68,597 |
| | | | | TOTAL CHARGES .. | 1,46,32,535 | 3,88,995 | 1,50,21,530 |
| | | | | Balance Not Revenue | 11,00,823 | 1,20,707 | 12,21,530 |
| | | | | GRAND TOTAL .. | 1,57,33,358 | 5,09,702 | 1,62,43,060 |
| TOTAL RECEIPTS .. | 1,37,32,388 | 5,28,709 | 1,42,61,097 | | | | |

(a) Share of account excluded from 1912-13.

(b) Includes Rs. 6,701 on account of loss for collection of Revenue.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Indus Inundation Canals Project.

No. 4.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| | Amount. | | Amount. |
|---|-----------|--|-----------|
| | Rs. | | Rs. |
| Total Interest charges to end of 1915-16 | 19,40,689 | Net Revenue realized to end of 1915-16 | 11,99,822 |
| | | Do. during 1916-17.. .. | 1,29,708 |
| Total outlay to 31st March 1917 Rs. 29,01,976 | | Balance net Interest charges.. .. | 7,06,680 |
| Less half outlay during 1916-17 4,308 | | | |
| Mean capital at charge 28,97,668 | | | |
| Interest at 3.2904 per cent 95,510 | | | |
| Total 20,36,208 | | Total | 20,36,208 |

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| Particulars. | Previous. | 1 10-17. | Total. |
|---|-----------|----------|----------|
| | Rs. | Rs. | Rs. |
| CAPITAL— | | | |
| Capitalization of abatement of Land Revenue | 8,307 | 250 | 8,657 |
| Leave and Pension Allowances | 71,639 | 79 | 71,718 |
| Total | 79,946 | 429 | 80,375 |
| REVENUE— | | | |
| Capitalization of abatement of Land Revenue | 23,408 | 2,225 | 25,633 |
| Leave and Pension Allowances | 6,35,134 | 17,460 | 6,52,594 |
| | 6,58,542 | 19,685 | 6,78,227 |
| GRAND TOTAL | 7,38,488 | 20,114 | 7,58,602 |

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

| PARTICULARS. | CHARGES AGAINST CLOSED SANCTIONS. | | | CURRENT SANCTIONS. | | | Total charges to date against old and current sanctions. | REMARKS. |
|---|---|--|-----------|--------------------|--------------------------------|-----------------------------|--|---|
| | Expenditure against Construction Estimate | Expenditure against open canal sanctions | Total. | Charges to date. | Amount of Sanctioned Estimate. | Unspent Balance of Estimate | | |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| DIRECT CHARGES— | | | | | | | | |
| Works | 6,63,648 | 16,24,070 | 22,87,718 | 1,33,310 | 1,28,708 | —4,601 | 24,20,988 | W 1. No. Date. Rs. 01359 16-9-15 21,848 1025 7-10-15 1,32,653 |
| Establishment | 87,204 | 3,48,134 | 4,35,338 | 24,611 | 24,017 | —40 | 4,58,949 | |
| Tools and Plant | 07 | 22,751 | 23,421 | 1,011 | 1,675 | +24 | 27,078 | |
| Suspense Balance | | | | 60,583 | | —60,583 | 60,583 | |
| TOTAL | 7,51,622 | 19,94,915 | 27,46,537 | 2,19,155 | 1,54,401 | —65,754 | 29,65,792 | |
| Less Receipts on Capital Account | 63,616 | | 63,616 | | | | 63,616 | 1,54,401 |
| NET TOTAL | 6,87,906 | 19,91,915 | 26,82,821 | 2,19,155 | 1,54,401 | —65,754 | 29,01,977 | |
| INDIRECT CHARGES— | | | | | | | | |
| Capitalized abatement of Land Revenue | 57 | 8,660 | 8,717 | | | | 8,657 | |
| Leave and Pension Allowances | 19,672 | 48,789 | 68,461 | 3,307 | | —3,307 | 71,718 | |
| TOTAL | 19,729 | 57,449 | 77,178 | 3,307 | | —3,307 | 80,375 | |
| GRAND TOTAL | 7,07,635 | 20,49,364 | 27,56,999 | 2,22,462 | 1,54,401 | —69,061 | 29,82,331 | |

IRRIGATION BRANCH.

PUNJAB PROVINCE

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Upper Chenab Canal Project.

No 2—CAPITAL ACCOUNT FOR AND TO END OF 1916-17

| HEADS OF ACCOUNT. | DIRECT CHARGES | | | Cost of construction as now estimated |
|--------------------------------------|--------------------|-----------------|--------------------|---------------------------------------|
| | Imperial | | | |
| | Previous | 1916 17 | Total | |
| I.—WORKS. | | | | |
| 1. HEAD WORKS— | Rs. | Rs. | Rs. | |
| A.—Preliminary Expenses | 8,284 | .. | 8,284 | |
| B.—Land | 87,095 | 58 | 88,053 | |
| C.—Works | 67,04,510 | — 5,440 | 66,99,070 | |
| K.—Buildings | 1,89,587 | 852 | 1,90,439 | |
| O.—Miscellaneous | 18,598 | 13,145 | 31,743 | |
| P.—Maintenance | 1,35,343 | .. | 1,35,343 | |
| Q.—Losses of Stock | 5,715 | 1,602 | 7,317 | |
| TOTAL | 71,60,041 | 10,203 | 71,60,240 | |
| 2. MAIN CANAL AND BRANCHES— | | | | |
| A.—Preliminary Expenses | 70,233 | 805 | 77,038 | |
| B.—Land | 9,08,171 | 3,618 | 9,71,789 | |
| D.—Regulators | 6,88,914 | 10,818 | 6,99,732 | |
| E.—Falls and Weirs | 9,50,027 | .. | 9,50,027 | |
| F. (1)—Other Cross Drainage Works .. | 22,60,422 | 3,533 | 22,72,955 | |
| G.—Bridges | 15,71,431 | 2,773 | 15,74,204 | |
| K.—Buildings | 8,33,360 | 15,505 | 8,48,865 | |
| L.—Earthwork | 69,43,275 | 5,562 | 69,48,837 | |
| M.—Plantation | 39,233 | 3,398 | 42,631 | |
| O.—Miscellaneous | 66,300 | 214 | 66,514 | |
| P.—Maintenance | 3,19,783 | 894 | 3,20,677 | |
| Q.—Losses of Stock | 7,211 | 4,574 | 11,785 | |
| TOTAL | 1,47,73,960 | 51,085 | 1,47,85,054 | |
| 3. DISTRIBUTARIES— | | | | |
| A.—Preliminary Expenses | 1,30,008 | 5,578 | 1,42,186 | |
| B.—Land | 54,1,935 | 80,325 | 6,22,260 | |
| C.—Works | 13,41,812 | 1,80,134 | 15,01,946 | |
| L.—Earthwork | 17,21,316 | 1,10,192 | 18,31,508 | |
| O.—Miscellaneous | 2,16,735 | 59,155 | 3,05,040 | |
| P.—Maintenance | 14,308 | .. | 14,308 | |
| TOTAL | 39,72,764 | 4,45,384 | 44,18,148 | |

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Upper Chenab Canal Project

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNT. | DIRECT CHARGES | | | Cost of construction as now estimated. | |
|---|----------------|-----------|-------------|--|--|
| | Imperial. | | | | |
| | Previous | 1916-17. | Total | | |
| | Rs. | Rs. | Rs. | | |
| 4 DRAINAGE AND PROTECTIVE WORKS— | | | | | |
| A.—Preliminary Expenses ... | 6,174 | 1,102 | 7,276 | | |
| B.—Land | 1,02,118 | 1,705 | 1,03,821 | | |
| C.—Works | 37,481 | 578 | 38,059 | | |
| L.—Earthwork | 9,23,090 | 1,02,340 | 10,25,430 | | |
| O.—Miscellaneous ... | 17,062 | 03 | 17,155 | | |
| TOTAL .. | 10,55,944 | 1,09,418 | 11,65,741 | | |
| TOTAL I.—WORKS .. | 2,69,42,017 | 4,17,095 | 2,73,59,192 | 2,92,05,401 | |
| II.—ESTABLISHMENT. | | | | | |
| 5. DIRECTION | 10,57,939 | 31,724 | 10,89,713 | | |
| 6. EXECUTIVE | 29,06,334 | 2,11,263 | 31,77,547 | | |
| 7. MEDICAL | 1,26,478 | 10,812 | 1,37,290 | | |
| 8. SPECIAL SURVEY | 62,573 | .. | 62,573 | | |
| 8½. SPECIAL FIELD SURVEY | 110 | .. | 110 | | |
| LEAVE AND PENSION ALLOWANCES .. | .. | .. | .. | | |
| TOTAL .. | 42,57,531 | 2,53,799 | 44,87,333 | 44,41,668 | |
| III. TOOLS AND PLANT. | | | | | |
| 1. SURVEYING INSTRUMENTS AND DRAWING MATERIALS. | 272 | 385 | 657 | | |
| 2. PLANT AND MACHINERY | 8,635 | .. | 8,635 | | |
| 3. TOOLS | 1,323 | 917 | 2,240 | | |
| 4. NAVIGATION PLANT | 606 | 326 | 932 | | |
| 5. CAMP EQUIPAGE | 28 | 7 | 35 | | |
| 6. LIVE STOCK | 00 | 474 | 574 | | |
| 7. OFFICE FURNITURE | 975 | 865 | 1,800 | | |
| 8. REPAIRS AND CARRIAGE | 1,21,020 | 3,974 | 1,25,894 | | |
| 11 RAILWAY PLANT AND ROLLING STOCK .. | 8,55,370 | .. | 8,55,370 | | |
| 12 MISCELLANEOUS | 6,95,465 | 4,09,480 | 11,93,951 | | |
| TOTAL .. | 16,81,091 | 5,05,444 | 21,90,148 | 19,02,424 | |
| IV.—SUSPENSE ACCOUNT. | | | | | |
| 14. STOCK | 8,07,154 | —1,22,165 | 6,85,049 | | |
| 15. STOCK PURCHASES | —1,397 | 957 | —440 | | |
| 15½. STOCK SALES | 1,205 | —1,140 | 155 | | |
| 16. MISCELLANEOUS ADVANCES .. | 4,445 | —4,300 | 05 | | |
| 18. LONDON STORES | .. | .. | .. | | |
| TOTAL .. | 8,11,567 | —1,26,548 | 6,84,919 | 3,00,010 | |
| GRAND TOTAL .. | 3,36,71,812 | 12,49,644 | 3,49,21,456 | 3,59,49,683 | |
| V.—LESS RECEIPTS ON CAPITAL ACCOUNT | 47,319 | 5,12,746 | 5,60,065 | 5,43,100 | |
| NET TOTAL .. | 3,36,24,503 | 1,37,134 | 3,47,01,637 | 3,53,06,583 | |
| APPORTIONMENT. | | | | | |
| 49. IRRIGATION WORKS | 3,35,16,432 | 7,37,131 | 3,42,53,766 | | |
| 43 M. W. AND NAVIGATION | 1,07,871 | .. | 1,07,871 | | |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Upper Chenab Canal Project.

No. 3—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| RECEIPTS. | IMPERIAL. | | | CHARGES. | IMPERIAL. | | |
|---|-----------|-----------|-----------|---|-----------|-----------|-----------|
| | Previous. | 1916-17. | Total. | | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | | Rs. | Rs. | Rs. |
| Occupiers' rates | 22,04,982 | 22,85,010 | 44,90,027 | (I A)—EXTENSIONS AND IMPROVEMENTS. | | | |
| | | | | (1)—HEAD WORKS ... | 16,834 | 22,340 | 39,174 |
| Sales of water | 885 | 1,152 | 1,537 | (2)—MAIN CANAL AND BRANCHES | 2,50,571 | 1,844 | 2,52,415 |
| | | | | (3)—DISTRIBUTARIES ... | | 1,610 | 1,610 |
| Water supply of towns ... | 1,814 | | 1,814 | TOTAL I.A. ... | 2,67,405 | 25,803 | 2,93,208 |
| | | | | (I B)—MAINTENANCE AND REPAIRS. | | | |
| Receipts from Plantations ... | 1,350 | 424 | 1,774 | (1)—HEAD WORKS ... | 1,80,838 | 46,885 | 2,27,718 |
| | | | | (2)—MAIN CANAL & BRANCHES | 5,07,088 | 1,01,737 | 6,08,817 |
| Receipts from other Canal produce. | 511 | | 511 | (3)—DISTRIBUTARIES ... | 8,20,702 | 2,05,574 | 5,35,366 |
| | | | | (4)—DRAINAGE WORKS ... | 72,088 | 20,958 | 93,046 |
| | | | | TOTAL I.B. ... | 19,00,693 | 4,06,154 | 15,55,847 |
| | | | | (I C)—COMPENSATION... | 37,739 | 4,500 | 42,209 |
| | | | | (II)—ESTABLISHMENT. | (b) | | |
| | | | | (5)—DIRECTION AND ACCOUNT | 53,930 | 39,350 | 84,280 |
| Rent of Buildings | 17,096 | 6,102 | 23,768 | (6)—EXECUTIVE ESTABLISHMENT. | 2,11,838 | 60,575 | 2,92,413 |
| | | | | (7A)—REVENUE DO. ... | 3,79,377 | 1,84,714 | 5,64,091 |
| | | | | TOTAL ... | 6,45,145 | 2,95,639 | 9,40,784 |
| | | | | (III)—TOOLS AND PLANT. | | | |
| Fines | 2,640 | 920 | 3,560 | (1)—SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS. | 42 | | 42 |
| | | | | (2)—PLANT AND MACHINERY | 3,573 | —1,511 | 1,982 |
| | | | | (12)—MISCELLANEOUS ... | 11,870 | 7,110 | 18,080 |
| Miscellaneous and other Receipts | 41,571 | 15,290 | 56,870 | (13)—REPAIRS AND CARRIAGE | 0,811 | | 6,811 |
| | | | | TOTAL ... | 22,290 | 5,519 | 27,815 |
| | | | | (IV)—REFUNDS OF REVENUE. | 2,075 | 260 | 2,344 |
| Total | 22,71,208 | 23,08,047 | 45,80,215 | TOTAL ... | 2,065,363 | 7,06,944 | 28,02,297 |
| Interest on sale-proceeds of waste lands bonafided. | 93,880 | 50,630 | 1,25,625 | Indirect Charges debitabla to Revenue Account as per Account No. 5. | 00,320 | 1,31,909 | 41,589 |
| Share of land revenue ... | 1,00,860 | 1,05,233 | 3,05,089 | TOTAL CHARGES ... | 21,55,073 | 8,38,533 | 20,94,200 |
| Collected in the Civil Department | 2,68,742 | 2,51,872 | 5,23,014 | Boltona, Net Revenue ... | 3,84,337 | 17,25,286 | 21,09,623 |
| TOTAL RECEIPTS | 25,40,010 | 25,03,810 | 51,03,820 | GRAND TOTAL ... | 25,40,010 | 25,03,810 | 51,03,820 |

(a).—Includes Rs. 60,537 on account of loss of collection of revenue.

(b).—Excluding Share of Accounts from 1912-13.

IRRIGATION BRANCH.

OFFICE OF ACCOUNTANT-GENERAL.

PUNJAB PROVINCE.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Upper Chenab Canal Project.

No. 4.—INTEREST ACCOUNT FOR AND TO END OF 1916-17.

| | Amount. | | Amount. |
|--|-----------|---|-----------|
| | Rs. | | Rs. |
| Total Interest charges to end of 1915-10 | 71,88,668 | Not revenue realized, to end of 1915-10 | 3,84,337 |
| Do. for the year 1916-17 | | Do. during 1916-17 | 17,25,280 |
| Total outlay to end of 31-3-17 = 3,43,51,637 | | Balance, net interest charges | 61,99,503 |
| Less half outlay during 1916-17 = 3,68,567 | | | |
| Mean Capital at charge = 3,30,02,070 | | | |
| Interest at 3.2964 per cent | 11,20,548 | | |
| Total .. | 83,09,216 | Total .. | 83,09,216 |

No. 5. ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| PARTICULARS. | Previous. | 1916-17. | Total. |
|---|-----------|----------|----------|
| | Rs. | Rs. | Rs. |
| CAPITAL— | | | |
| Capitalization of abatement of Land Revenue | 2,91,725 | 67,923 | 3,59,660 |
| Leave and Pension Allowances | 5,85,367 | 35,572 | 6,20,897 |
| Total .. | 8,77,090 | 1,03,497 | 9,80,587 |
| REVENUE— | | | |
| Capitalization of abatement of Land Revenue | .. | 200 | 200 |
| Leave and Pension Allowances | 00,320 | 41,386 | 1,31,709 |
| Total .. | 80,320 | 41,586 | 1,31,909 |

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

| PARTICULARS. | CURRENT SANCTIONS | | | Total charges to date against old and current sanctions. | REMARKS. |
|---|-------------------|--------------------------------|------------------------------|--|----------|
| | Charges to date. | Amount of Sanctioned Estimate. | Unspent Balance of Estimate. | | |
| | Rs. | Rs. | Rs. | Rs. | |
| DIRECT CHARGES— | | | | | |
| Works | 2,75,59,192 | 2,92,05,491 ^(a) | 16,46,299 | 2,75,59,192 | |
| Establishment | 44,87,333 | 44,11,668 ^(b) | —45,666 | 44,87,333 | |
| Tools and Plant | 21,00,148 | 19,02,421 ^(c) | —2,67,724 | 21,00,148 | |
| Suspense Balances | 6,44,520 | 3,60,000 | —3,84,822 | 6,44,520 | |
| Total .. | 3,47,91,193 | 3,55,79,580 | 9,25,081 | 3,47,91,193 | |
| Less Receipts on Capital Account | 5,69,865 | 5,13,000 | —10,895 | 5,69,865 | |
| Not Total .. | 3,42,21,328 | 3,50,66,580 | 9,14,186 | 3,42,21,328 | |
| INDIRECT CHARGES— | | | | | |
| Capitalized abatement of Land Revenue | 3,69,850 | 5,16,668 | 1,57,018 | 3,69,850 | |
| Leave and Pension Allowances | 5,20,897 | 7,08,772 | 87,576 | 6,20,897 | |
| Total .. | 9,90,747 | 12,25,440 | 2,44,594 | 9,90,747 | |
| GRAND TOTAL .. | 3,52,12,075 | 3,62,92,020 | 11,58,780 | 3,52,12,075 | |

(a)—The following transfers of provision have been made

I.—Rs. 8,25,000—transferred from 49—Capital I—Works, Upper Chenab Canal, to 40—Capital I—Works, Upper Jhelum Canal, vide Government of India letter No. 676 I, dated 5th October 1916

II.—Rs. 3,000 } Transferred from 19—Capital I—Works to III.—Tools and Plant, Upper Chenab Canal Project, vide Irrigation Branch Secretary's No. 716 W. I., dated 15th February 1916, 0250 W. I., dated 12th June 1916 and 712 W. I., dated 10th February 1917.

(b)—The transfer of Rs. 1,74,494 from 49—Capital, III.—Tools and Plant to II—Establishment, Upper Chenab Canal Project as per Secretary's No. 510 W. I., dated 2nd February 1911 was erroneously accounted for against the Revised Estimate, hence set right.

(c)—Vide (c) II above.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Lower Bari Doab Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNT. | | | | DIRECT CHARGES— | | | Cost of construction as now estimated | Rs. | |
|---|--|--|--|-----------------|----------|-------------|---------------------------------------|-----|--|
| | | | | Imperial. | | | | | |
| | | | | Previous. | 1910-17. | Total. | | | |
| | | | | Rs. | Rs. | Rs. | Rs. | Rs. | |
| L—WORKS. | | | | | | | | | |
| 1. HEAD WORKS— | | | | | | | | | |
| A.—Preliminary Expenses | | | | 13,800 | ... | 13,800 | | | |
| B.—Land | | | | 2,22,160 | —20 | 2,22,161 | | | |
| C.—Works | | | | 45,76,038 | 1,63,884 | 47,39,922 | | | |
| K.—Buildings | | | | 1,33,551 | 5,163 | 1,38,714 | | | |
| O.—Miscellaneous | | | | 21,701 | 101 | 21,802 | | | |
| P.—Maintenance | | | | 78,796 | .. | 78,796 | | | |
| Q.—Losses on Stock | | | | .. | 1,780 | 1,780 | | | |
| TOTAL | | | | 50,46,172 | 1,79,006 | 52,17,077 | | | |
| 2. MAIN CANAL AND BRANCHES— | | | | | | | | | |
| A.—Preliminary Expenses | | | | 1,12,598 | + 34,381 | 1,53,050 | | | |
| B.—Land | | | | 47,082 | —30,200 | 10,882 | | | |
| D.—Regulators | | | | 1,27,792 | .. | 1,27,792 | | | |
| E.—Falls and Weirs | | | | 4,15,853 | .. | 4,15,853 | | | |
| F.—River and Hill Torrent Works | | | | 671 | .. | 671 | | | |
| F. (1).—Other Cross Drainage Works | | | | 4,54,143 | 500 | 4,55,041 | | | |
| G.—Bridges | | | | 4,72,780 | —2,066 | 4,70,114 | | | |
| H.—Escapes | | | | 62,352 | 620 | 62,972 | | | |
| K.—Buildings | | | | 10,11,616 | 38,874 | 10,50,510 | | | |
| L.—Earthwork | | | | 83,85,422 | 349 | 83,85,771 | | | |
| M.—Plantations | | | | 1,15,075 | 12,117 | 1,28,792 | | | |
| O.—Miscellaneous | | | | 70,805 | 3,110 | 82,084 | | | |
| P.—Maintenance | | | | 2,31,718 | 5,328 | 2,37,046 | | | |
| Q.—Losses on Stock | | | | 405 | .. | 405 | | | |
| TOTAL | | | | 64,76,303 | 63,498 | 65,38,801 | | | |
| 3. DISTRIBUTARIES— | | | | | | | | | |
| A.—Preliminary Expenses | | | | 90,314 | 5,125 | 1,01,430 | | | |
| B.—Land | | | | 1,31,676 | —932 | 1,30,744 | | | |
| C.—Works | | | | 11,95,810 | 55,115 | 12,50,925 | | | |
| L.—Earthwork | | | | 13,05,114 | 64,580 | 14,20,703 | | | |
| O.—Miscellaneous | | | | 11,50,339 | 1,09,564 | 13,25,003 | | | |
| P.—Maintenance | | | | 32,108 | 2,078 | 34,187 | | | |
| TOTAL | | | | 39,77,362 | 2,94,630 | 42,72,001 | | | |
| 4. DRAINAGE AND PROTECTIVE WORKS. | | | | | | | | | |
| A.—Preliminary | | | | 5,739 | 1,845 | 7,581 | | | |
| B.—Land | | | | 409 | 0,082 | 0,491 | | | |
| C.—Works | | | | 720 | .. | 720 | | | |
| L.—Earthwork | | | | 8,541 | 24,241 | 32,782 | | | |
| O.—Miscellaneous | | | | 9,053 | 2,350 | 11,410 | | | |
| TOTAL | | | | 24,469 | 24,518 | 58,087 | | | |
| TOTAL I.—WORKS. | | | | 1,55,23,300 | 5,03,500 | 1,60,50,560 | 1,00,80,298 | | |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Lower Bari Doab Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNT. | DIRECT CHARGES. | | | Cost of construction as now estimated. |
|--|-----------------|-----------|-------------|--|
| | Imperial. | | | |
| | Previous. | 1916-17. | Total. | |
| | Rs. | Rs. | Rs. | Rs. |
| II—ESTABLISHMENT. | | | | |
| 5. DIRECTION AND ACCOUNTS (a) | 5,30,561 | 38,608 | 5,69,172 | |
| 6. EXECUTIVE | 20,00,153 | 2,25,087 | 22,25,240 | |
| 7. MEDICAL | 92,578 | 12,275 | 1,04,853 | |
| 8. SPECIAL SURVEY | 7,840 | .. | 7,840 | |
| TOTAL | 27,30,133 | 2,76,870 | 30,07,003 | 32,49,734 |
| III—TOOLS AND PLANT | | | | |
| 1. SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS. | 871 | 1,123 | 1,994 | |
| 2. PLANT AND MACHINERY | 9,784 | 1,336 | 11,070 | |
| 3. TOOLS | 427 | 1,320 | 1,747 | |
| 4. NAVIGATION PLANT | 4,181 | 463 | 4,644 | |
| 5. CAMP EQUIPAGES | 680 | 760 | 1,440 | |
| 6. LIVE STOCK | .. | 299 | 299 | |
| 7. OFFICE FURNITURE | 2,153 | 1,546 | 3,709 | |
| 8. REPAIRS AND CARRIAGE | 1,03,924 | 11,709 | 1,15,633 | |
| 9. MISCELLANEOUS | 6,07,564 | 4,03,123 | 10,10,687 | |
| 10. RAILWAY PLANT AND ROLLING STOCK .. | 7,83,454 | .. | 7,83,454 | |
| TOTAL | 15,12,958 | 4,21,770 | 19,34,727 | 20,15,908 |
| IV.—SUSPENSE ACCOUNT. | | | | |
| 14. STOCK | 9,63,081 | —57,320 | 9,05,281 | |
| 15. STOCK PURCHASES | —2,839 | —1,107 | —4,036 | |
| 15. (a) STOCK SALES | 713 | —361 | 352 | |
| 16. MISCELLANEOUS ADVANCES | 1,515 | —1,085 | +430 | |
| 17. LONDON INVOICES | —1 | .. | —1 | |
| 18. LONDON STORES | .. | .. | .. | |
| TOTAL | 9,62,469 | —60,403 | 9,02,006 | 3,00,000 |
| GRAND TOTAL | 2,07,28,890 | 12,01,740 | 2,19,30,632 | 2,16,51,940 |
| V.—Less RECEIPTS ON CAPITAL ACCOUNT | 61,032 | 4,48,497 | 5,10,360 | 2,82,000 |
| NET TOTAL | 2,06,66,904 | 7,53,300 | 2,14,20,273 | 2,13,69,940 |
| APPORTIONMENT. | | | | |
| 49.—IRRIGATION WORKS | 2,04,09,443 | 7,53,300 | 2,12,52,752 | |
| 48.—M. W. AND NAVIGATION, IMPERIAL .. | 1,07,321 | .. | 1,07,521 | |

(a) Excludes share of account from 1912-13.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Lower Bari Doab Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| Receipts. | IMPERIAL. | | | CHARGES. | IMPERIAL. | | |
|--|-----------|----------|-----------|---|------------|----------|-----------|
| | Previous | 1916-17. | Total. | | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | | Rs. | Rs. | Rs. |
| Occupiers' rates ... | 9,40,156 | 7,31,730 | 16,80,886 | (I.A)—EXTENSIONS AND IMPROVEMENTS. | | | |
| | | | | 1.—HEAD WORKS ... | 2,137 | 2,669 | 4,806 |
| | | | | 2.—MAIN CANAL AND BRANCHES | 2,717 | 1,471 | 4,188 |
| | | | | 3.—DISTRIBUTARIES ... | 7,73 | 4,821 | 12,159 |
| | | | | 4.—DRAINAGE AND PROTECTIVE WORKS. | ... | ... | .. |
| | | | | TOTAL I. A ... | 12,102 | 8,961 | 21,153 |
| Es'ces of water .. | 1,039 | 11,410 | 16,510 | (I.B)—MAINTENANCE AND REPAIRS. | | | |
| | | | | 1.—HEAD WORKS ... | 89,717 | 33,622 | 1,23,339 |
| | | | | 2.—MAIN CANAL AND BRANCHES. | 2,71,280 | 1,69,228 | 4,50,508 |
| | | | | 3.—DI TRIBUTARIES .. | 3,18,207 | 1,65,077 | 4,84,274 |
| | | | | 4.—DRAINAGE WORKS .. | 7,565 | 819 | 8,384 |
| | | | | TOTAL I.B. .. | 6,86,859 | 3,59,646 | 10,46,505 |
| Receipts from Plantations ... | 3,591 | 3,075 | 6,666 | (I.C)—COMPENSATION. | | | |
| " other Canal produce | 335 | ... | 335 | (II)—ESTABLISHMENT | | | |
| | | | | 1.—DIRECTION AND ACCOUNTS. | (a) 37,502 | 20,594 | 67,096 |
| Rent of buildings ... | 1 | 6,031 | 6,031 | 6.—EXECUTIVE ESTABLISHMENT. | 1,73,132 | 00,031 | 1,73,163 |
| | | | | (7A)—REVENUE Do. ... | 1,09,881 | 1,31,819 | 3,31,700 |
| | | | | TOTAL ... | 3,59,515 | 2,21,444 | 6,71,959 |
| Fines ... | 1,001 | 407 | 1,471 | III.—TOOLS AND PLANT. | | | |
| | | | | 1.—SURVEYING INSTRUMENTS AND DRAWING MATERIALS | ... | .. | .. |
| | | | | 2.—PLANT AND MACHINERY ... | ... | ... | ... |
| | | | | 3.—TOOLS ... | ... | ... | ... |
| | | | | 4.—NAVIGATION PLANT .. | ... | .. | .. |
| | | | | 5.—CAMP EQUIPAGES ... | ... | ... | ... |
| | | | | 6.—LIVE STOCK ... | ... | .. | ... |
| Miscellaneous and other Receipts, | 13,280 | 3,552 | 16,832 | 7.—OFFICE FURNITURE .. | ... | ... | 6 |
| | | | | 8.—REPAIRS AND CARRIAGE MISCELLANEOUS. | 1,970 | 5,287 | 15,276 |
| | | | | TOTAL ... | 9,970 | 5,303 | 15,276 |
| | | | | (IV)—REFUNDS OF REVENUE | 062 | 237 | 809 |
| | | | | (V)—PROFIT AND LOSS. | ... | ... | ... |
| | | | | TOTAL ... | 10,00,207 | 5,05,691 | 16,55,798 |
| Total ... | 9,60,723 | 7,02,206 | 17,25,029 | Indirect Charges debitable to Revenue Account as per Account No. 5. | 40,072 | 31,002 | 80,074 |
| Share of Land Revenue collected in the Civil Department. | ... | 3 | 3,819 | TOTAL CHARGES ... | 11,09,279 | 6,26,593 | 17,32,575 |
| Interest on sale proceeds of waste land benefited. | 1,68,114 | 1,09 | 3,07,219 | Balance, Not Revenue .. | 25,568 | 3,38,537 | 3,64,005 |
| TOTAL RECEIPTS ... | 11,34,837 | 8,05,130 | 20,09,967 | GRAND TOTAL ... | 11,34,837 | 9,05,130 | 20,09,967 |

(a). Excludes share of accounts since 1912-13.

(b). Includes Rs. 21,105 on account of Lambardars' fees for 1910-17.

IRRIGATION BRANCH.

OFFICE OF ACCOUNTANT-GENERAL.

PUNJAB PROVINCE.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Lower Bari Doab Canal Project.

No. 4—INTEREST ACCOUNT FOR AND TO END OF 1916-17.

| | Rs. | | Rs. |
|---|-----------------|---|-----------|
| Total Interest charges to end of 1915-16 .. | 32,06,067 | Net Revenue realized to end of 1915-16 .. | 25,558 |
| Do. for the year 1916-17 .. | | Do. during 1916-17 .. | 8,38,637 |
| Total outlay to 31st March 1917 .. | Rs. 2,14,20,273 | Balance Interest net charges ... | 35,36,654 |
| Less half outlay during 1916-17 .. | 3,76,655 | | |
| Mean capital at charge .. | 2,10,43,618 | | |
| Interest at 3 296½ per cent .. | 6,93,682 | | |
| Total .. | 39,00,649 | Total .. | 30,00,049 |

No. 5—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| PARTICULARS. | Previous. | 1916-17. | Total. |
|--|-----------|----------|----------|
| | Rs. | Rs. | Rs. |
| CAPITAL.— | | | |
| Capitalization of abatement of Land Revenue .. | 43,750 | 200 | 43,950 |
| Leave and Pension Allowances .. | 3,71,278 | 38,762 | 4,10,040 |
| Total .. | 4,15,028 | 38,962 | 4,53,990 |
| REVENUE.— | | | |
| Leave and Pension Allowances .. | 49,072 | 31,002 | 80,074 |
| Total .. | 49,072 | 31,002 | 80,074 |

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

| PARTICULARS. | CURRENT SANCTIONS. | | | Total charges to date against old and current sanctions. | REMARKS. |
|--|--------------------|--------------------------------|------------------------------|--|---|
| | Charges to date. | Amount of Sanctioned Estimate. | Unspent Balance of Estimate. | | |
| | Rs. | Rs. | Rs. | Rs. | |
| DIRECT CHARGES.— | | | | | |
| Works .. | 1,60,86,860 | 1,60,86,208 | --568 | 1,60,86,860 | Revised estimate sanctioned in Secretary of State's Despatch No. 5 P. W., dated 17th February 1911. Rs. 3,00,000 transferred from I—Works to III—Tools and Plants as per Secretary's Irrigation Branch letter No. 6910 W 1 dated 5th August 1916. |
| Establishment .. | 30,07,003 | 32,19,731 | 2,12,731 | 30,07,003 | |
| Tools and Plant .. | 19,34,767 | 20,15,908 | 81,141 | 19,34,767 | |
| Suspense Balances .. | 0,02,070 | 3,00,000 | --6,02,006 | 9,02,000 | |
| Total .. | 2,19,30,612 | 2,19,51,946 | --2,73,702 | 2,19,30,612 | |
| Less Receipts on Capital Account .. | 5,10,369 | 2,82,000 | --2,28,369 | 5,10,369 | |
| Net Total .. | 2,14,20,273 | 2,13,69,946 | --50,333 | 2,14,20,273 | |
| INDIRECT CHARGES.— | | | | | |
| Capitalized abatement of Land Revenue .. | 43,950 | 1,47,500 | 1,03,550 | 43,950 | |
| Leave and Pension Allowances .. | 4,10,040 | 5,10,062 | 100,922 | 4,10,040 | |
| Total .. | 4,53,990 | 6,58,462 | 2,04,472 | 4,53,990 | |
| GRAND TOTAL .. | 2,18,74,263 | 2,20,28,408 | 1,54,139 | 2,18,74,263 | |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Upper Jhelum Canal Project.

No. 2—CAPITAL ACCOUNTS FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNTS. | | | | | DIRECT CHARGES. | | | Cost of construction as now estimated. |
|---|--|--|--|--|-----------------|----------|-------------|--|
| | | | | | Imperial. | | | |
| | | | | | Previous. | 1916-17 | Total. | |
| | | | | | Rs. | Rs. | Rs. | Rs. |
| I.—WORKS, | | | | | | | | |
| 1.—HEAD WORKS— | | | | | | | | |
| A.—Preliminary Expenses.. .. . | | | | | 7,349 | .. | 7,349 | |
| B.—Land | | | | | 11,020 | .. | 11,020 | |
| C.—Works | | | | | 1,818 | .. | 1,818 | |
| K.—Buildings | | | | | 1,80,401 | 1,012 | 1,87,477 | |
| O.—Miscellaneous | | | | | 38,021 | .. | 38,021 | |
| P.—Maintenance | | | | | 14,972 | .. | 14,972 | |
| TOTAL | | | | | 2,69,614 | 1,012 | 2,60,436 | |
| 2.—MAIN CANAL AND BRANCHES— | | | | | | | | |
| A.—Preliminary Expenses.. .. . | | | | | 1,11,005 | 1,100 | 1,12,168 | |
| B.—Land | | | | | 9,21,556 | 10,667 | 9,32,227 | |
| D.—Regulators | | | | | 33,18,102 | —10,060 | 32,09,537 | |
| E.—Dykes and Weirs | | | | | 1,62,235 | 3,817 | 1,60,951 | |
| F.—River and Hill Torrent Works | | | | | 1,41,00,978 | 2,29,865 | 1,33,30,813 | |
| G.—Bridges | | | | | 10,20,501 | 13,200 | 10,33,800 | |
| H.—Escapes | | | | | 2,59,807 | 370 | 2,50,177 | |
| K.—Buildings | | | | | 6,16,090 | 71,246 | 7,17,320 | |
| L.—Earthwork | | | | | 1,05,20,894 | 1,49,016 | 1,06,80,809 | |
| M.—Plantations | | | | | 51,750 | 87 | 51,817 | |
| O.—Miscellaneous | | | | | 69,076 | 1,892 | 61,970 | |
| P.—Maintenance | | | | | 3,07,842 | 4,217 | 4,02,089 | |
| Q.—Losses on Stock | | | | | 5,160 | —929 | 4,537 | |
| TOTAL | | | | | 3,03,07,518 | 4,65,887 | 3,10,63,433 | |
| 3.—DISTRIBUTARIES— | | | | | | | | |
| A.—Preliminary Expenses.. .. . | | | | | 28,010 | 14,622 | 43,132 | |
| B.—Land | | | | | 1,37,582 | 1,41,011 | 2,79,193 | |
| C.—Works | | | | | 2,77,982 | 2,03,692 | 4,86,604 | |
| L.—Earthwork | | | | | 2,66,373 | 2,81,010 | 5,48,272 | |
| O.—Miscellaneous | | | | | 62,038 | 2,79,130 | 3,31,168 | |
| TOTAL | | | | | 7,01,682 | 7,20,761 | 16,83,441 | |

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Upper Jhelum Canal Project.

No. 2—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNT. | | | | | | DIRECT CHARGES. | | | Cost of construction as now estimated. |
|---|--|--|--|--|--|-----------------|-----------|-------------|--|
| | | | | | | Imperial. | | | |
| | | | | | | Previous | 1916-17. | Total | |
| | | | | | | Rs. | Rs. | Rs. | Rs. |
| I. DRAINAGE AND PROTECTIVE WORKS— | | | | | | | | | |
| A.—Preliminary Expenses | | | | | | 0,958 | .. | 0,958 | |
| O.—Miscellaneous | | | | | | 127 | .. | 127 | |
| TOTAL | | | | | | 7,085 | .. | 7,085 | |
| TOTAL I.—WORKS | | | | | | 8,16,23,062 | 13,03,663 | 2,30,19,625 | 3,53,54,865 |
| II.—ESTABLISHMENT. | | | | | | | | | |
| 5. DIRECTION AND ACCOUNT (a) | | | | | | 8,99,552 | 55,800 | 9,55,448 | |
| C. EXECUTIVE | | | | | | 33,81,359 | 2,17,334 | 36,28,803 | |
| 7. MEDICAL | | | | | | 1,22,655 | 14,022 | 1,37,677 | |
| TOTAL | | | | | | 44,03,526 | 3,18,322 | 47,21,848 | 40,02,371 |
| III.—TOOLS AND PLANT. | | | | | | | | | |
| 1. SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS | | | | | | 248 | 442 | 690 | |
| 2. PLANT AND MACHINERY | | | | | | 28,61,160 | 533 | 28,61,692 | |
| 3. TOOLS | | | | | | —2,438 | 2,400 | —38 | |
| 4. NAVIGATION PLANT | | | | | | 323 | 1,403 | 1,726 | |
| 5. CAMP EQUIPAGE | | | | | | 465 | 103 | 568 | |
| 7. OFFICE FURNITURE | | | | | | 3,568 | 2,555 | 6,123 | |
| 8. REPAIRS AND CARRIAGE | | | | | | 1,45,539 | 5,076 | 1,50,616 | |
| MISCELLANEOUS | | | | | | 14,70,175 | 1,00,326 | 15,70,401 | |
| TOTAL | | | | | | 41,70,920 | 1,12,738 | 45,91,767 | 46,59,540 |
| IV.—SUSPENSE ACCOUNT. | | | | | | | | | |
| 14. STOCK | | | | | | 11,74,027 | —1,16,97 | 10,57,948 | |
| 15. STOCK PURCHASES | | | | | | —10,167 | —12,024 | —28,211 | |
| 16a. „ SALES | | | | | | 631 | —480 | 151 | |
| 16. MISCELLANEOUS ADVANCES | | | | | | 8,500 | —3,100 | 5,310 | |
| 17. LONDON INVOICES | | | | | | .. | .. | .. | |
| 18. LONDON STORES | | | | | | .. | .. | .. | |
| TOTAL | | | | | | 11,67,874 | —1,32,673 | 10,35,201 | 6,00,000 |
| GRAND TOTAL | | | | | | 4,16,70,491 | 16,02,060 | 4,33,68,541 | 4,52,20,706 |
| V.—LESS RECEIPTS ON CAPITAL ACCOUNT | | | | | | 65,195 | 2,61,762 | 3,56,957 | 11,53,484 |
| NET TOTAL | | | | | | 4,15,81,296 | 14,30,288 | 4,30,11,584 | 4,40,65,282 |
| APPORTIONMENT. | | | | | | | | | |
| 40. IRRIGATION WORKS | | | | | | 4,15,14,345 | 14,30,288 | 4,20,44,633 | |
| 43. MINOR WORKS AND NAVIGATION, IMPERIAL.. .. . | | | | | | 66,948 | .. | 66,948 | |

(a) Excludes share of account commencing from 1912-13.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Upper Jhelum Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| RECEIPTS. | IMPERIAL. | | | CHARGES. | IMPERIAL. | | |
|---------------------------------|-----------|----------|--------|---|-----------|-----------|------------|
| | Previous. | 1916-17. | Total. | | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | | Rs. | Rs. | Rs. |
| Water rates .. | .. | 74,703 | 74,703 | (I. A.)—EXTENSIONS AND IMPROVEMENTS. | | | |
| | | | | (2.)—MAIN CANAL AND BRANCHES. | 20,225 | 44,390 | 64,624 |
| | | | | TOTAL I. A. .. | 20,225 | 44,390 | 64,624 |
| Sales of water .. | .. | 291 | 291 | (I. B.)—MAINTENANCE AND REPAIRS. | | | |
| | | | | (1.)—HEAD WORKS .. | 10,850 | 14,851 | 25,511 |
| | | | | (2.)—MAIN CANAL AND BRANCHES. | 2,39,078 | 3,72,295 | 6,11,973 |
| | | | | (3.)—DISTRIBUTARIES .. | .. | 31,635 | 31,635 |
| Receipts from plantations .. | .. | 2 | 2 | TOTAL I. B. .. | 2,50,338 | 4,18,781 | 6,69,119 |
| | | | | II.—ESTABLISHMENT. | | | |
| | | | | (5.)—DIRECTION AND ACCOUNTS. | 5,446 | 22,313 | (b) 30,759 |
| Rents of Buildings .. | 3,120 | 5,256 | 8,376 | (6.)—EXECUTIVE ESTABLISHMENT. | 41,254 | 76,320 | 1,20,574 |
| | | | | (7 A.)—REVENUE ESTABLISHMENT. | 6,634 | 51,267 | 57,891 |
| | | | | TOTAL .. | 50,334 | 1,49,890 | 2,09,224 |
| Fines .. | .. | 238 | 238 | (III.)—TOOLS AND PLANT. | | | |
| | | | | (3.)—TOOLS .. | —29 | .. | —29 |
| | | | | (7.)—OFFICE FURNITURE | 71 | —1 | 70 |
| Miscellaneous & other receipts. | 3,144 | 3,954 | 6,108 | (8.)—DETAILS AND CARRIAGE. | .. | 7 | 7 |
| | | | | MISCELLANEOUS .. | 3,904 | 6,734 | 10,038 |
| | | | | TOTAL .. | 3,946 | 6,740 | 10,686 |
| | | | | IV. REFUNDS OF REVENUE. | | | |
| | | | | | 36 | 5 | 35 |
| | | | | TOTAL .. | 3,33,375 | 6,19,815 | 9,53,688 |
| Total .. | 6,261 | 83,036 | 89,000 | Indirect Charges debitable to Revenue Account as per Account No. 5. | 8,397 | 20,086 | 28,292 |
| | | | | TOTAL CHARGES .. | 3,42,180 | 6,40,890 | 9,82,930 |
| | | | | Balance, Not Revenue .. | —3,35,910 | —5,87,104 | —8,98,080 |
| TOTAL RECEIPTS .. | 6,261 | 83,036 | 89,000 | GRAND TOTAL .. | 6,261 | 83,036 | 89,000 |

(a). Includes Rs. 1,887 on account of fees for collection of Revenue.

(b). Excludes share of accounts.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Upper Jhelum Canal Project.

No. 4—INTEREST ACCOUNT FOR AND TO END OF 1910-17.

| | Amount. | | Amount. |
|---|-------------|--|-----------|
| | Rs. | | Rs. |
| Total Interest charges to end of 1915-16 .. | 71,29,183 | Not revenue realized during 1916-17 .. | —5,67,104 |
| Do. for the year 1916-17 .. | | Balance not Interest charges .. | 90,80,607 |
| Total outlay to 31st March 1917 ... | 4,30,11,554 | | |
| Less half outlay during 1916-17 ... | 7,16,144 | | |
| Mean capital at charge ... | 4,22,95,410 | | |
| Interest at 3-2904 per cent .. | 13,94,260 | | |
| Total .. | 85,23,443 | | 85,23,443 |

No. 5—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| Particulars. | Previous. | 1916-17. | Total. |
|--|-----------|----------|----------|
| | Rs. | Rs. | Rs. |
| CAPITAL— | | | |
| Capitalization of abatement of Land Revenue .. | 1,68,326 | 13,975 | 1,82,300 |
| Leave and Pension Allowances .. | 6,11,495 | 44,565 | 6,56,063 |
| Total .. | 7,79,823 | 58,540 | 8,38,363 |
| REVENUE— | | | |
| Capitalization of abatement of Land Revenue .. | .. | .. | .. |
| Leave and Pension Allowances .. | 8,307 | 20,985 | 29,292 |
| Total .. | 8,307 | 20,985 | 29,292 |
| GRAND TOTAL .. | 7,88,130 | 79,525 | 8,67,655 |

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

| PARTICULARS. | CURRENT SANCTIONS. | | | Total charges to date against old and current sanctions. | REMARKS. |
|--|--------------------|--------------------------------|------------------------------|--|---|
| | Charges to date. | Amount of Sanctioned Estimate. | Unspent Balance of Estimate. | | |
| | Rs. | Rs. | Rs. | Rs. | |
| DIRECT CHARGES— | | | | | |
| Works .. | 3,30,19,625 | 3,53,58,855 | 23,39,230 | 3,30,19,625 | Changes in figures of sanctioned estimates for I—Works and III—Tools and Plant as compared with the sanctions shown in the last account are due to the transfer of Rs. 825,000 from the head I Works of the Upper Chenab Canal to that of Upper Jhelum Canal, vide Government of India Public Works Department's letter No. 667 CI, dated 8th October 1916 and to the transfer of Rs. 14,000 and 51,000 from I—Works to III—Tools and Plant of Upper Jhelum Canal, vide Government Punjab Public Works Department, Irrigation Branch's Letters Nos. 1201 W. I. dated 15-3-17, 1616 W. I. dated 30-3-17, and 1598, dated 8-4-16. |
| Establishment .. | 47,21,948 | 46,02,371 | —1,19,577 | 47,21,948 | |
| Tools and Plant .. | 45,91,707 | 40,59,510 | 67,773 | 45,91,707 | |
| Suspense Balances .. | 10,35,201 | 6,00,000 | —4,35,201 | 10,35,201 | |
| Total .. | 4,33,68,511 | 4,32,20,766 | 18,52,225 | 4,33,68,511 | |
| Less Receipts on Capital Account. | 3,56,757 | 11,56,484 | 7,95,627 | 3,56,967 | |
| Not Total .. | 4,30,11,754 | 4,40,65,282 | 10,33,001 | 4,30,11,754 | |
| INDIRECT CHARGES— | | | | | |
| Capitalized abatement of Land Revenue. | 1,82,300 | 1,10,945 | —71,367 | 1,82,300 | |
| Leave and Pension Allowances. | 6,56,063 | 9,45,332 | 2,89,250 | 6,56,063 | |
| Total .. | 8,38,303 | 10,56,277 | 2,17,914 | 8,38,303 | |
| GRAND TOTAL .. | 4,38,49,947 | 4,51,21,559 | 12,71,612 | 4,38,49,947 | |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Shahpur Canal Project—Imperial.

No. 2—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNT. | DIRECT CHARGES | | | Cost of construction as now estimated (Construction Estimate closed on 31st March 1894). | Expenditure against closed Estimates. |
|----------------------------------|----------------|----------|----------|--|---------------------------------------|
| | Imperial. | | | | |
| | Previous. | 1916-17. | Total. | | |
| I.—WORKS. | Rs. | Rs. | Rs. | Rs. | Rs. |
| 2.—MAIN CANAL AND BRANCHES— | | | | | |
| B.—Land | 3,028 | .. | 3,028 | | |
| D.—Regulator | 13,187 | .. | 13,187 | | |
| G.—Bridges | 20,522 | .. | 20,522 | | |
| L.—Earthwork | 89,974 | .. | 89,974 | | |
| TOTAL | 1,26,711 | .. | 1,26,711 | | |
| 3.—DISTRICTARIES— | | | | | |
| H.—Land | 8,219 | .. | 8,219 | | |
| C.—Works | 18,561 | .. | 18,561 | | |
| E.—Earthwork | 21,600 | .. | 21,600 | | |
| TOTAL | 48,340 | .. | 48,340 | | |
| TOTAL I.—WORKS | 1,75,050 | .. | 1,75,050 | 1,75,050 | 1,75,050 |
| II.—ESTABLISHMENT. | | | | | |
| 5. DIRECTION | 7,518 | .. | 7,518 | | |
| 6. EXECUTIVE | 22,712 | .. | 22,712 | | |
| TOTAL | 30,230 | .. | 30,230 | 30,230 | 30,230 |
| III.—TOOLS AND PLANT. | | | | | |
| 12. MISCELLANEOUS | 588 | .. | 588 | | |
| 13. REPAIRS AND CARRIAGE | 25 | .. | 25 | | |
| TOTAL | 613 | .. | 613 | 613 | 613 |
| GRAND TOTAL | 2,05,933 | .. | 2,05,933 | 2,05,933 | 2,05,933 |
| APPORTIONMENT | | | | | |
| 49 IRRIGATION WORKS | 2,05,933 | .. | 2,05,933 | 2,05,933 | 2,05,933 |

Note.—Capital and Revenue accounts of these Canals will continue to be prepared separately until the Shahpur Branch of the Lower Jhelum Canal has been constructed and opened for Irrigation, vide Secretary to Govt., Punjab, P. W. D. Irrigation Branch letter No. 986 A. I., dated 7-6-05.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Shahpur Canal Project—Imperial.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| RECEIPTS. | IMPERIAL. | | | CHARGES. | IMPERIAL. | | |
|--|-----------|----------|-----------|---|------------|----------|-----------|
| | Previous. | 1916-17. | Total. | | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | (I. A.)—EXTENSIONS AND IMPROVEMENTS. | Rs. | Rs. | Rs. |
| Occupiers' rates .. | 21,90,534 | 80,315 | 22,70,849 | 2.—MAIN CANAL AND BRANCHES | 82,238 | .. | 82,238 |
| | | | | 3.—DISTRIBUTARIES | 14,623 | .. | 14,623 |
| Sales of water .. | 1,309 | 0 | 1,315 | TOTAL I. A. | 96,861 | .. | 96,861 |
| Receipts from Plantations ... | 16,576 | 25 | 16,601 | (I. B.)—MAINTENANCE AND REPAIRS. | | | |
| | | | | 2.—MAIN CANAL AND BRANCHES | 6,13,780 | 15,601 | 6,29,380 |
| Receipts from other Canal produce. | 3,856 | .. | 3,856 | 3.—DISTRIBUTARIES | 1,22,287 | 3,338 | 1,25,625 |
| Rent of Buildings .. | 1,368 | .. | 1,368 | TOTAL I. B. | 7,36,067 | 18,939 | 7,55,016 |
| | | | | (I. C.)—COMPENSATION .. | 553 | .. | 553 |
| Fines .. | 1,866 | .. | 1,866 | (II.)—ESTABLISHMENT. | | | |
| Miscellaneous and other Receipts. | 1,710 | .. | 1,710 | 5.—DIRECTION AND ACCOUNT | (b) 73,399 | 6,731 | 79,720 |
| | | | | 6.—EXECUTIVE ESTABLISHMENT | | | |
| | | | | 7.—MEDICAL Do. ... | 4,71,006 | (a) | 4,90,413 |
| | | | | 7A.—REVENUE Do. .. | | | |
| | | | | 7B.—NAVIGATION Do. .. | | | |
| | | | | TOTAL | 5,46,395 | 21,768 | 5,70,163 |
| Total ... | 22,23,248 | 80,346 | 23,03,594 | III.—TOOLS AND PLANT. | | | |
| | | | | 12.—MISCELLANEOUS | 3,109 | .. | 3,109 |
| | | | | 13.—REPAIRS AND CARRIAGE .. | 2,012 | .. | 2,012 |
| | | | | TOTAL | 5,121 | .. | 5,121 |
| Share of Land Revenue collected in the Civil Department. | 3,42,322 | 34,672 | 3,76,994 | IV.—REFUNDS OF REVENUE | 1,233 | .. | 1,233 |
| | | | | TOTAL | 13,86,239 | 43,707 | 14,29,946 |
| | | | | Indirect Charges debitable to Revenue Account as per Account No. 5. | 77,826 | 3,408 | 81,294 |
| Total ... | 3,42,322 | 34,672 | 3,76,994 | TOTAL CHARGES | 14,63,965 | 47,176 | 15,10,240 |
| | | | | Balance, Not Revenue | 11,02,506 | 67,813 | 11,70,348 |
| TOTAL RECEIPTS | 25,65,570 | 1,16,018 | 26,80,588 | GRAND TOTAL | 25,65,570 | 1,15,018 | 26,80,588 |

(a). Includes Rs. 2,247 on accounts of fees for collection of revenue.

(b). Excludes share of accounts commencing from 1912-13.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Shahpur Canal Project—Imperial.

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| Particulars. | Previous. | 1916-17. | Total. |
|---|---------------|--------------|---------------|
| | Rs. | Rs. | Rs. |
| CAPITAL— | | | |
| Capitalization of abatement of Land Revenue | 5,175 | .. | 5,175 |
| Leave and Pension Allowances | 1,313 | .. | 1,313 |
| Total | 6,488 | .. | 6,488 |
| REVENUE— | | | |
| Capitalization of abatement of Land Revenue | 944 | .. | 944 |
| Leave and Pension Allowances | 76,852 | 3,408 | 80,260 |
| Total | 77,796 | 3,408 | 81,204 |
| GRAND TOTAL | 84,284 | 3,408 | 87,692 |

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

| PARTICULARS. | CHARGES AGAINST CLOSED SANCTIONS. | | | CURRENT SANCTIONS. | | | | REMARKS. |
|--|--|--|-----------------|--------------------|--------------------------------|------------------------------|--|----------|
| | Expenditure against Construction Estimate. | Expenditure against open canal sanctions | Total. | Charges to date. | Amount of Sanctioned Estimate. | Unspent Balance of Estimate. | Total charges to date against old and current sanctions. | |
| | Rs. | Rr. | Rr. | Rs. | Rs. | Rs. | Rs. | |
| DIRECT CHARGES. | | | | | | | | |
| Works .. | 1,75,000 | .. | 1,75,000 | .. | .. | .. | 1,75,000 | |
| Establishment .. | 30,260 | .. | 30,260 | .. | .. | .. | 30,260 | |
| Tools and Plants .. | 613 | .. | 613 | .. | .. | .. | 613 | |
| Total .. | 2,05,873 | .. | 2,05,873 | .. | .. | .. | 2,05,873 | |
| Less Receipts on Capital Account. .. | .. | .. | .. | .. | .. | .. | .. | |
| Net Total .. | 2,05,873 | .. | 2,05,873 | .. | .. | .. | 2,05,873 | |
| INDIRECT CHARGES— | | | | | | | | |
| Capitalized abatement of Land Revenue. | 5,038 | .. | 5,038 | .. | .. | .. | 5,038 | |
| Leave and Pension Allowances. | 4,343 | .. | 4,343 | .. | .. | .. | 4,343 | |
| Total .. | 9,381 | .. | 9,381 | .. | .. | .. | 9,381 | |
| GRAND TOTAL .. | 2,15,254 | .. | 2,15,254 | .. | .. | .. | 2,15,254 | |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Ghaggar Canal Project.

No. 2—CAPITAL ACCOUNT FOR AND TO END OF 1916-17.

| HEADS OF ACCOUNT. | DIRECT CHARGES. | | | | | | | | |
|-----------------------------------|-----------------|-----------|-----------------|-----------------|-----------|-----------------|-----------------|-----------|-----------------|
| | Imperial. | | | Contribution. | | | Total. | | |
| | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| 1.—WORKS. | | | | | | | | | |
| 1. HEAD WORKS— | | | | | | | | | |
| B.—Land .. | 432 | .. | 432 | 268 | .. | 268 | 720 | .. | 720 |
| C.—Works .. | 50,817 | .. | 50,817 | 30,878 | .. | 30,878 | 09,695 | .. | 09,695 |
| K.—Buildings .. | 2,186 | .. | 2,186 | 1,454 | .. | 1,454 | 3,614 | .. | 3,614 |
| TOTAL .. | 62,435 | .. | 62,435 | 41,604 | .. | 41,604 | 1,01,050 | .. | 1,01,050 |
| 2. MAIN CANAL AND BRANCHES | | | | | | | | | |
| A.—Preliminary Expenses | 7,560 | .. | 7,560 | 5,010 | .. | 5,010 | 12,615 | .. | 12,615 |
| B.—Land .. | 8,750 | .. | 8,750 | 8,291 | .. | 8,291 | 17,044 | .. | 17,044 |
| D.—Regulators .. | 10,652 | .. | 10,652 | 8,431 | .. | 8,431 | 28,110 | .. | 28,110 |
| E.—Falls and Weirs .. | 1,861 | .. | 1,861 | 5,019 | .. | 5,019 | 6,910 | .. | 6,910 |
| G.—Bridges .. | 24,070 | .. | 24,070 | 27,690 | .. | 27,690 | 51,775 | .. | 51,775 |
| H.—Escapes .. | 13,185 | .. | 13,185 | 5,051 | .. | 5,051 | 18,839 | .. | 18,839 |
| K.—Buildings .. | 6,880 | .. | 6,880 | 1,387 | .. | 1,387 | 21,271 | .. | 21,271 |
| L.—Earthwork .. | 77,205 | .. | 77,205 | 1,10,100 | .. | 1,10,100 | 1,97,314 | .. | 1,97,314 |
| O.—Miscellaneous .. | 1,837 | .. | 1,837 | 2,588 | .. | 2,588 | 4,425 | .. | 4,425 |
| TOTAL .. | 1,60,057 | .. | 1,60,057 | 1,85,255 | .. | 1,85,255 | 3,48,312 | .. | 3,48,312 |
| 3. DISTRIBUTARIES— | | | | | | | | | |
| A.—Preliminary Expenses | 403 | .. | 403 | .. | .. | .. | 403 | .. | 403 |
| B.—Land .. | 3,933 | .. | 3,933 | .. | .. | .. | 3,933 | .. | 3,933 |
| C.—Works .. | 17,995 | .. | 17,995 | .. | .. | .. | 17,995 | .. | 17,995 |
| L.—Earthwork .. | 20,210 | .. | 20,210 | .. | .. | .. | 20,210 | .. | 20,210 |
| O.—Miscellaneous .. | 14,783 | .. | 14,783 | 8,745 | .. | 8,745 | 23,528 | .. | 23,528 |
| TOTAL .. | 60,324 | .. | 60,324 | 8,745 | .. | 8,745 | 75,069 | .. | 75,069 |

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Ghaggar Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1916-17

| HEADS OF ACCOUNT. | DIRECT CHARGES. | | | | | | | | | Cost of construction as now estimated (Construction Estimate closed on 31st March 1905.) | Expenditure against closed Estimates. |
|--------------------------------------|-----------------|----------|------------|---------------|----------|----------|-----------|----------|----------|--|---------------------------------------|
| | Imperial. | | | Contribution. | | | Total. | | | | |
| | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. | Previous. | 1916-17. | Total. | | |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | | |
| I.—DRAINAGE AND PROTECTIVE WORKS | | | | | | | | | | | |
| L—Earthwork | 5,801 | ... | 5,801 | ... | ... | ... | 5,801 | ... | 5,801 | .. | ... |
| TOTAL | 5,801 | ... | 5,801 | ... | .. | .. | 5,801 | ... | 5,801 | .. | ... |
| TOTAL I.—WORKS | 2,91,617 | ... | 2,91,617 | 2,38,624 | | 2,38,624 | 7,33,241 | .. | 3,3 | | |
| II.—ESTABLISHMENT. | | | | | | | | | | | |
| 5.—OFFICE AND ACCOUNT | 12,614 | ... | (a) 12,614 | 8,453 | .. | 8,453 | 22,067 | ... | 21 | | |
| 6.—EXECUTIVE | 42,628 | ... | 42,628 | 30,391 | .. | 30,391 | 74,020 | ... | 71 | | |
| 7.—MEDICAL... .. | 5,558 | ... | 5,558 | ... | .. | .. | 5,558 | .. | 1 | | |
| LEAVE AND PENSION ALLOWANCES .. | ... | ... | ... | 5,430 | | 5,430 | 5,439 | .. | 1 | | |
| TOTAL | 62,707 | ... | 62,707 | 41,254 | ... | 41,254 | 1,07,081 | .. | 1,07 | | |
| III.—TOOLS AND PLANT | | | | | | | | | | | |
| 12.—MISCELLANEOUS | 7,923 | ... | 7,923 | 2,534 | | 2,534 | 10,457 | .. | 10 | | |
| TOTAL | 7,923 | ... | 7,923 | 2,534 | ... | 2,534 | 10,457 | .. | 10 | | |
| GRAND TOTAL | 3,66,337 | ... | 3,66,337 | 2,85,442 | .. | 2,85,442 | 6,50,779 | .. | 6,50 | | |
| V.—LESS RECEIPTS ON CAPITAL ACCOUNT. | | | | | | | | | | | |
| Net Total | 3,66,337 | ... | 3,66,337 | 2,85,442 | .. | 2,85,442 | 6,50,779 | .. | 6,50,779 | 6,50,779 | 6,50,779 |
| APPORTIONMENT. | | | | | | | | | | | |
| 43.—M. W. AND NAVIGATION, IMPERIAL | 3,66,337 | ... | 3,66,337 | 2,85,442 | ... | 2,85,442 | 6,50,779 | .. | 6,50,779 | .. | .. |

(a). Share of Accounts excluded under Imperial from 1912-13.

OFFICE OF ACCOUNTANT-GENERAL.
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Ghaggar Canal Project.

No. 3—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| RECEIPTS | IMPERIAL | | | CONTRIBUTION. | | | TOTAL. | | |
|------------------------------------|-----------|----------|----------|---------------|----------|--------|-----------|----------|----------|
| | Previous. | 1916-17. | Total. | Previous | 1916-17. | Total. | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| Occupier's rates .. | 1,17,405 | 21,847 | 1,39,252 | .. | .. | .. | 1,17,405 | 21,847 | 1,39,252 |
| Receipts from Plantations .. | 2 | .. | 2 | 2 | .. | 2 | 4 | .. | 4 |
| Receipts from other Canal produce. | .. | .. | .. | 1 | .. | 1 | 1 | .. | 1 |
| Rent of Buildings .. | 232 | .. | 232 | 145 | .. | 145 | 380 | .. | 380 |
| Fines .. | 260 | .. | 260 | 70 | .. | 70 | 330 | .. | 330 |
| Miscellaneous and other Receipts. | 181 | 3 | 184 | 120 | .. | 120 | 301 | 3 | 304 |
| Total .. | 1,18,170 | 21,850 | 1,40,020 | 341 | .. | 341 | 1,18,511 | 21,850 | 1,40,361 |
| TOTAL RECEIPTS .. | 1,18,170 | 21,850 | 1,40,020 | 341 | .. | 341 | 1,18,511 | 21,850 | 1,40,361 |

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Ghaggar Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| CHARGES. | IMPERIAL. | | | CONTRIBUTION. | | | TOTAL. | | |
|---|-----------|----------|-----------|---------------|----------|-----------|-----------|----------|-----------|
| | Previous | 1916-17. | Total | Previous | 1916-17. | Total | Previous | 1916-17. | Total |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| (I A)—EXTENSIONS AND IMPROVEMENTS. | | | | | | | | | |
| (1).—HEAD WORKS .. | 9,088 | 321 | 10,002 | 6,115 | 214 | 5,021 | 15,103 | 535 | 15,638 |
| 2.—MAIN CANAL AND BRANCHES | 7,116 | 1,072 | 8,704 | 1,775 | 410 | 2,197 | 8,801 | 2,007 | 10,991 |
| 3.—DISTRIBUTARIES .. | 3,000 | .. | 3,000 | .. | .. | .. | 3,000 | .. | 3,000 |
| 4.—DRAINAGE AND PROTECTIVE WORKS. | 801 | .. | 801 | .. | .. | .. | 801 | .. | 801 |
| TOTAL I. A. .. | 21,205 | 1,993 | 23,201 | 7,145 | 634 | 7,626 | 28,308 | 2,532 | 31,030 |
| (I. B)—MAINTENANCE AND REPAIRS. | | | | | | | | | |
| 1.—HEAD WORKS .. | 20,723 | 811 | 30,534 | 10,815 | 511 | 23,356 | 46,828 | 1,382 | 50,900 |
| 2.—MAIN CANAL AND BRANCHES | 99,180 | 5,212 | 1,03,692 | 50,100 | 1,303 | 61,403 | 1,52,592 | 6,816 | 1,65,167 |
| 3.—DISTRIBUTARIES .. | 26,022 | 813 | 27,736 | 180 | .. | 180 | 27,632 | 813 | 27,905 |
| 4.—DRAINAGE AND PROTECTIVE WORKS. | 832 | .. | 832 | .. | .. | .. | 832 | .. | 832 |
| TOTAL I. B. .. | 1,25,957 | 6,836 | 1,62,894 | 50,095 | 1,814 | 61,934 | 2,30,051 | 8,630 | 2,44,734 |
| (I. C).—COMPENSATION .. | 10,909 | .. | 10,909 | .. | .. | .. | 10,909 | .. | 10,909 |
| (II).—ESTABLISHMENT. | | | | | | | | | |
| 5.—DIRECTION AND ACCOUNT (b) | 59,051 | 3,506 | 53,381 | 4,400 | 136 | 4,636 | 51,660 | 3,935 | 53,516 |
| (6).—EXECUTIVE ESTABLISHMENT | 1,72,739 | 11,617 | 1,87,351 | 18,106 | 388 | 16,101 | 1,08,815 | 15,001 | 2,73,546 |
| (7).—MEDICAL Do. .. | 6,302 | .. | 6,302 | .. | .. | .. | 6,302 | .. | 6,302 |
| (7A).—REVENUE Do. .. | 1,03,997 | 602 | 1,04,599 | .. | .. | .. | 1,03,997 | 602 | 1,04,599 |
| (7D).—LEAVE AND PENSION ALLOWANCES. | .. | .. | .. | 2,882 | 73 | 2,955 | 2,882 | 73 | 2,955 |
| TOTAL .. | 3,33,119 | 19,017 | 3,52,136 | 23,487 | 594 | 21,091 | 3,56,006 | 10,611 | 3,70,217 |
| (III).—TOOLS AND PLANT. | | | | | | | | | |
| 12.—MISCELLANEOUS .. | —082 | —31 | —120 | 1,727 | 34 | 1,751 | 4,542 | .. | 4,542 |
| 13.—REPAIRS AND CARRIAGE .. | 3,507 | .. | 3,507 | .. | .. | .. | .. | .. | .. |
| TOTAL .. | 2,815 | —31 | 2,781 | 1,727 | 34 | 1,761 | 4,542 | .. | 4,542 |
| IV.—REFUNDS OF REVENUE | 2,432 | .. | 2,432 | 20 | .. | 20 | 2,452 | .. | 2,452 |
| TOTAL .. | 5,26,443 | 27,818 | 5,54,261 | 1,12,517 | 3,103 | 1,15,622 | 6,75,000 | 30,923 | 6,50,883 |
| Indirect Charges debitable to Revenue Account as per Account No. 5. | 46,637 | 2,002 | 49,200 | .. | .. | .. | 46,637 | 2,552 | 49,209 |
| TOTAL CHARGES .. | 5,73,680 | 35,486 | 6,03,550 | 1,12,517 | 3,103 | 1,15,622 | 6,85,597 | 33,688 | 7,10,132 |
| BALANCE NET REVENUE .. | —4,56,610 | —8,630 | —4,02,510 | —1,12,176 | 3,106 | —1,15,281 | —5,67,086 | —11,735 | —5,78,821 |
| GRAND TOTAL .. | 1,18,170 | 21,656 | 1,40,620 | 341 | .. | 341 | 1,18,511 | 21,850 | 1,40,361 |

(a). Includes Rs. 602 as foot for collection of Revenue.

(b). Share of account excluded under Imperial from 1912-13.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Ghaggar Canal Project.

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| Particulars. | Previous. | 1916-17. | Total. |
|---|------------|------------|------------|
| CAPITAL— | Rs. | Rs. | Rs. |
| Capitalization of abatement of Land Revenue .. | 2,000 | .. | 2,000 |
| Leave and Pension Allowances { Imperial .. | 8,792 | .. | 8,792 |
| { Contribution .. | 5,439 | .. | 5,439 |
| Total .. | 16,231 | .. | 16,231 |
| <i>Deduct—Leave and Pension Allowances debitable to Bikanir State treated as direct charge and transferred to Account No. 2 of the canal.</i> | 5,439 | .. | 5,439 |
| Net debitable to Imperial .. | 10,792 | .. | 10,792 |
| REVENUE— | | | |
| Capitalization of abatement of Land Revenue .. | .. | .. | .. |
| Leave and Pension Allowances { Imperial .. | 46,637 | 2,662 | 49,299 |
| { Contribution .. | 2,882 | 73 | 2,955 |
| Total .. | 49,519 | 2,735 | 52,254 |
| <i>Deduct—Leave and Pension Allowances debitable to Bikanir State treated as direct charge and transferred to Account No. 2 of the canal.</i> | 2,882 | 73 | 2,955 |
| Total .. | 46,637 | 2,662 | 49,299 |

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

| Particulars. | CHARGES AGAINST CLOSED SANCTIONS. | | | CURRENT SANCTIONS. | | | Total charges to date against old and current sanctions. | REMARKS. |
|--|--|---|-----------------|--------------------|--------------------------------|------------------------------|--|----------|
| | Expenditure against Construction Estimate. | Expenditure against open canal sanctions. | Total. | Charges to date. | Amount of sanctioned Estimate. | Unspent Balance of Estimate. | | |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| DIRECT CHARGES— | | | | | | | | |
| Works .. | 4,08,214 | 35,027 | 4,43,241 | .. | .. | .. | 4,43,241 | |
| Establishment .. | 1,00,970 | 6,111 | 1,07,081 | .. | .. | .. | 1,07,081 | |
| Tools and Plant .. | 10,048 | 409 | 10,457 | .. | .. | .. | 10,457 | |
| Total .. | 5,09,232 | 41,547 | 5,50,779 | .. | .. | .. | 5,50,779 | |
| <i>Less Receipts on Capital Account.</i> | | | | | | | | |
| Not Total .. | 5,09,232 | | 5,50,779 | .. | .. | .. | 5,50,779 | |
| INDIRECT CHARGES— | | | | | | | | |
| Capitalized abatement of Land Revenue. | 1,901 | 100 | 2,001 | .. | .. | .. | 2,000 | |
| Leave and Pension Allowances. | 7,068 | 824 | 7,892 | .. | .. | .. | 8,792 | |
| Total .. | 8,969 | 924 | 9,893 | .. | .. | .. | 10,792 | |
| GRAND TOTAL .. | 5,18,100 | 42,471 | 5,60,571 | .. | .. | .. | 5,61,571 | |

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Lower Sutlej Inundation Canals including Hajiwah Canal Project.

No. 3—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| RECEIPTS. | IMPERIAL. | | | CHARGES. | IMPERIAL. | | |
|--|-------------|-----------|-------------|---|-------------|------------|--------------|
| | Previous | 1916-17. | Total. | | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | | Rs. | Rs. | Rs. |
| Occupiers' rates | 32,05,804 | 3,16,934 | 35,22,738 | (I A.)—EXTENSIONS AND IMPROVEMENTS. | | | |
| | | | | 2.—MAIN CANAL AND BRANCHES | 8,20,281 | 42,321 | 8,71,602 |
| | | | | 3.—DISTRIBUTARIES .. | 1,38,827 | 3,601 | 1,42,428 |
| | | | | 4.—DRAINAGE AND PROTECTIVE WORKS. | 5,688 | .. | 5,688 |
| Sales of water | 2,458 | 178 | 2,636 | TOTAL I.A. .. | 0,78,796 | 46,922 | 10,18,718 |
| | | | | (I B.)—MAINTENANCE AND REPAIRS. | | | |
| Receipts from Plantations.. | 64,642 | 2,495 | 67,137 | 2.—MAIN CANAL AND BRANCHES | 27,11,755 | 75,686 | 27,87,441 |
| | | | | 3.—DISTRIBUTARIES .. | 1,49,031 | 10,833 | 1,60,764 |
| | | | | 4.—DRAINAGE WORKS .. | 3,540 | .. | 3,540 |
| | | | | TOTAL I.B. .. | 28,65,226 | 86,519 | 29,51,745 |
| Receipts from other Canal produce. | 33,808 | 186 | 33,994 | I.C.—COMPENSATION .. | 4,004 | 100 | 4,194 |
| | | | | (II)—ESTABLISHMENT .. | | | |
| Rent of Buildings | 54,303 | 1,721 | 56,024 | 5.—DIRECTION AND ACCOUNT | 4,89,476 | (b) 11,679 | 4,92,155 |
| | | | | 6.—EXECUTIVE ESTABLISHMENT | 15,00,510 | 49,069 | 15,50,479 |
| | | | | 7.—MEDICAL do. .. | 24,709 | 1,383 | 26,092 |
| | | | | 7A.—REVENUE do. .. | 4,28,679 | 30,200 | (a) 4,58,879 |
| | | | | TOTAL .. | 24,40,274 | 93,291 | 25,33,565 |
| Miscellaneous and other Receipts. | 54,303 | 1,721 | 56,024 | III.—TOOLS AND PLANT | | | |
| | | | | 1.—SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS | .. | 75 | 75 |
| | | | | 2.—PLANT AND MACHINERY | .. | .. | .. |
| | | | | 3.—TOOLS .. | 108 | 60 | 177 |
| | | | | 4.—NAVIGATION PLANT .. | .. | .. | .. |
| | | | | 5.—CAIT EQUIPMENT .. | 32 | .. | 32 |
| | | | | 6.—LIFT STOCK .. | .. | .. | .. |
| | | | | 7.—OFFICE FURNITURE .. | 33 | 211 | 244 |
| | | | | 8.—REPAIRS AND CARRIAGE | 17,287 | 1,284 | 18,571 |
| | | | | MISCELLANEOUS .. | 27,432 | —183 | 27,249 |
| Total | 34,61,015 | 3,21,214 | 37,82,229 | TOTAL .. | 44,802 | 1,456 | 46,348 |
| | | | | IV.—REFUNDS OF REVENUE. | 3,318 | 180 | 3,504 |
| Contribution | 12,45,839 | .. | 12,45,839 | V.—PROFIT AND LOSS .. | 348 | .. | 348 |
| | | | | SUBSIDIES ACCOUNT. | | | |
| Chhar Labour | 39,24,410 | .. | 39,24,410 | Miscellaneous Advances .. | 38 | —39 | —1 |
| | | | | Stock .. | 22,761 | —683 | 22,178 |
| | | | | Stock Purchases .. | 1 | .. | 1 |
| | | | | Stock Sales .. | .. | .. | .. |
| | | | | TOTAL .. | 22,800 | —922 | 22,178 |
| Share of Land Revenue collected in the Civil Department. | 3,05,700 | 61,49,872 | 64,55,572 | TOTAL .. | 63,64,748 | 2,26,862 | 66,81,610 |
| | | | | Chhar Labour .. | 39,24,410 | .. | 39,24,410 |
| | | | | TOTAL .. | 1,02,79,158 | 2,26,862 | 1,05,06,010 |
| | | | | Indirect Charges debitable to Revenue Account as per Account No. 5. | 3,74,739 | 13,061 | 3,87,800 |
| TOTAL RECEIPTS | 1,77,81,136 | 6,26,914 | 1,84,08,050 | TOTAL CHARGES .. | 1,06,63,897 | 2,30,911 | 1,08,94,810 |
| | | | | Balance, Net Revenue .. | 71,27,235 | 3,87,901 | 75,14,240 |
| | | | | GRAND TOTAL .. | 1,77,81,136 | 6,26,914 | 1,84,08,050 |

(a) Includes Rs. 9,080 an account of fees for collection of Revenue.

(b) Excludes accounts commencing from 1912-13.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Lower Sutlej Inundation Canals including Hajiwah Canal Project.

No 5—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916 17

| Particulars. | Previous. | 1916-17. | Total. |
|--|-----------|----------|----------|
| | Rs. | Rs. | Rs. |
| REVENUE— | | | |
| Capitalization abatement of Land Revenue ... | 5 | ... | 5 |
| Leave and Pension Allowances ... | 3,74,734 | 13,061 | 3,87,795 |
| Total ... | 3,74,739 | 13,061 | 3,87,800 |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Lower Sutlej Inundation Canals including Hajiwah Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| Receipts. | IMPERIAL. | | | CHARGES | IMPERIAL. | | |
|--|-----------|----------|-----------|---|------------|-----------|-----------|
| | Previous | 1916-17. | Total | | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | | Rs. | Rs. | Rs. |
| Occupiers' rates .. | 4,05,624 | 22,124 | 6,15,015 | (I A.)—EXTENSIONS AND IMPROVEMENTS. | 35,750 | —2,325 | 33,425 |
| | | | | (2)—MAIN CANAL & BRANCHES.. | 17 | .. | 15 |
| | | | | (3)—DISTRIBUTARIES .. | | | |
| | | | | TOTAL I. A. .. | 35,750 | —2,325 | 33,440 |
| Sales of water ... | 11 | .. | 11 | (I. B.)—MAINTENANCE AND REPAIRS. | | | |
| | | | | (2)—MAIN CANAL & BRANCHES | 2,01,781 | 6,052 | 2,67,833 |
| Receipts from Plantations | 157 | .. | 157 | (3)—DISTRIBUTARIES .. | 12 | .. | 12 |
| | | | | TOTAL I. B. .. | 2,01,793 | 6,052 | 2,67,845 |
| Receipts from other Canal produce. | 30 | .. | 30 | (I. C.)—COMPENSATION. | | | |
| | | | | II. ESTABLISHMENT. | | | |
| Miscellaneous and other Receipts. | 90 | .. | 90 | (5)—DIRECTION AND ACCOUNT.. | (b) 30,008 | .. | 30,008 |
| | | | | (6)—EXECUTIVE ESTABLISHMENT | 76,219 | 1,691 | 77,910 |
| | | | | (7A.)—REVENUE Do. .. | 35,161 | (a) 2,437 | 37,595 |
| | | | | TOTAL .. | 1,41,388 | 4,025 | 1,45,415 |
| Total .. | 4,35,947 | 22,124 | 5,19,341 | (III)—TOOLS AND PLANT, | | | |
| | | | | (9.) NAVIGATION PLANT .. | 2,674 | 43 | 2,717 |
| | | | | (12)—MISCELLANEOUS .. | | | |
| | | | | (13.)—REPAIRS AND CARRIAGE... | | | |
| | | | | TOTAL .. | 2,674 | 43 | 2,717 |
| | | | | (IV.)—REFUNDS OF REVENUE | 620 | .. | 620 |
| | | | | (V.)—PROFIT AND LOSS | | | |
| | | | | TOTAL .. | 4,42,240 | 7,708 | 1,50,035 |
| Share of Land Revenue collected in the Civil Department. | 4,74,637 | 30,231 | 5,04,815 | Indirect Charges debitable to Revenue Accounts per Account No. 5. | 19,704 | 561 | 20,365 |
| Interest on sale proceeds of waste lands benefited. | | | | TOTAL CHARGES .. | 4,62,031 | 8,302 | 4,70,396 |
| | 4,74,637 | 30,231 | 5,04,815 | Balance, Not Revenue .. | 5,08,570 | 44,293 | 5,52,863 |
| TOTAL RECEIPTS ... | 9,70,604 | 52,656 | 10,33,250 | GRAND TOTAL ... | 9,70,604 | 52,656 | 10,33,250 |

(a). - Includes Rs. 650 on account of fees paid for collection of Revenue.

(b). Excludes accounts commencing from 1912-13.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNT. FOR THE YEAR 1916-17.

Lower Sutlej Inundation Canals Hajiwah Canal Project.

No. 5. ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| Particulars. | Previous. | 1916-17. | Total. |
|------------------------------|-----------|----------|--------|
| | Rs. | Rs. | Rs. |
| Revenue— | | | |
| Leave and Pension Allowances | 19,794 | 564 | 20,358 |
| Total | 19,794 | 564 | 20,358 |

IRRIGATION BRANCH.

PUNJAB PROVINCE

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Chenab Inundation Canals Project.

No. 3.—REVENUE ACCOUNTS FOR AND TO END OF 1916-17.

| RECEIPTS. | IMPERIAL. | | | CHARGES. | IMPERIAL. | | |
|--|-------------|----------|-------------|---|-------------|-------------|-------------|
| | Previous. | 1916-17. | Total. | | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | | Rs. | Rs. | Rs. |
| Occupiers' rates .. | 26,40,202 | 1,03,725 | 28,33,057 | I. A.—EXTENSIONS AND IMPROVEMENTS. | | | |
| Sales of water .. | 3,509 | 119 | 3,627 | 2.—MAIN CANAL AND BRANCHES | 8,88,000 | 14,112 | 0,03,012 |
| Receipts from Plantations | 62,701 | 1,002 | 64,601 | 3.—DISTRIBUTARIES .. | 1,40,000 | 0,249 | 1,50,248 |
| Receipts from other Canal produce. | 42,316 | 20 | 42,336 | 4.—DRAINAGE AND PROTECTIVE WORKS. | 25,101 | 315 | 25,446 |
| Rent of Buildings .. | 1,390 | 235 | 1,625 | TOTAL I. A. .. | 10,53,000 | 23,706 | 10,76,706 |
| Fines .. | 39,746 | 639 | 40,385 | (I. B.)—MAINTENANCE AND REPAIRS. | | | |
| Miscellaneous and other Receipts. | 2,325 | 403 | 2,728 | 2.—MAIN CANAL AND BRANCHES | 31,67,170 | 07,011 | 32,34,781 |
| Total .. | 2,52,729 | 1,97,217 | 30,20,046 | 3.—DISTRIBUTARIES .. | 1,25,231 | 8,295 | 1,33,576 |
| Contribution .. | 11,47,600 | .. | 11,47,600 | 4.—DRAINAGE WORKS .. | 91,749 | 2,187 | 03,936 |
| Other Labour .. | 21,08,114 | .. | 21,08,114 | TOTAL I. B. .. | 3,41,200 | 78,003 | 3,42,203 |
| Share of Land Revenue collected in the Civil Department. | 66,30,318 | 2,16,705 | 68,47,023 | I. C.—COMPENSATION .. | 1,032 | .. | 1,032 |
| TOTAL RECEIPTS .. | 1,60,08,736 | 4,44,012 | 1,64,52,776 | II.—ESTABLISHMENT. | | | |
| | | | | 5.—DIRECTION AND ACCOUNT .. | 5,11,513 | (b) 10,455 | 5,22,260 |
| | | | | 6.—EXECUTIVE ESTABLISHMENT | | | |
| | | | | 7.—MEDICAL do. .. | 16,41,51 | 2 (a) 36,41 | 16,77,685 |
| | | | | (7A).—Revenue do. .. | | | |
| | | | | TOTAL .. | 21,53,025 | 46,902 | 21,99,92 |
| | | | | III.—TOOLS AND PLANT. | | | |
| | | | | 12.—MISCELLANEOUS | 31,011 | 497 | 31,511 |
| | | | | 13.—REPAIRS AND CARRIAGE .. | | | |
| | | | | TOTAL .. | 31,011 | 497 | 31,511 |
| | | | | IV.—REFUNDS OF REVENUE | 9,356 | 215 | 0,09,691 |
| | | | | V.—PROFIT AND LOSS .. | 425 | .. | 425 |
| | | | | TOTAL .. | 66,34,952 | 1,40,443 | 67,84,300 |
| | | | | CIVIL LABOUR .. | 21,08,111 | .. | 24,08,114 |
| | | | | TOTAL .. | 90,43,066 | 1,40,443 | 91,92,609 |
| | | | | Indirect Charges Debitable to Revenue Account as per Account No. 6 .. | 3,51,254 | 6,585 | 3,57,839 |
| | | | | TOTAL CHARGES .. | 93,91,320 | 1,56,009 | 95,50,329 |
| | | | | Balance, Net Revenue .. | 60,14,414 | 2,88,033 | 69,02,417 |
| | | | | GRAND TOTAL .. | 1,00,08,734 | 4,44,012 | 1,04,52,776 |

(a) Includes Rs. 5,405 on account of fees for collection of Revenue.
 (b) Excludes accounts commencing from 1912-13.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Chenab Inundation Canals Project.

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| Particulars. | Previous. | 1916-17. | Total. |
|---|-----------|----------|----------|
| | Rs. | Rs. | Rs. |
| Revenue— | | | |
| Capitalization of abatement of Land Revenue ... | 8,536 | ... | 8,536 |
| Leave and Pension Allowances ... | 3,42,718 | 6,566 | 3,49,284 |
| Total ... | 3,51,254 | 6,566 | 3,57,820 |

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Muzaffargarh Inundation Canals Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| RECEIPTS. | IMPERIAL. | | | CHARGES. | IMPERIAL. | | |
|--|-------------|----------|-------------|---|-------------|------------|-------------|
| | Previous. | 1916-17. | Total. | | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | | Rs. | Rs. | Rs. |
| Occupiers' rates.. | 31,46,582 | 3,22,655 | 34,69,237 | (I A.)—EXTENSIONS AND IMPROVEMENTS. | | | |
| | | | | 2.—MAIN CANAL AND BRANCHES .. | 7,16,601 | 11,015 | 7,30,416 |
| | | | | 3.—DRAIN CAPES .. | 09,526 | 21,548 | 1,24,073 |
| Sale of water .. | 1,632 | 220 | 1,362 | 1.—DRAINAGE AND PROTECTIVE WORKS. | 20,336 | .. | 20,338 |
| | | | | TOTAL I. A. ... | 8,46,463 | 30,407 | 8,74,827 |
| | | | | (I B.)—MAINTENANCE AND REPAIRS. | | | |
| Receipts from Plantations .. | 1,18,675 | 15,117 | 1,33,792 | 2.—MAIN CANAL AND BRANCHES .. | 28,55,726 | 1,31,633 | 20,97,350 |
| | | | | 3.—DISTRIBUTARIES .. | 2,00,203 | 44,027 | 3,13,320 |
| | | | | 4.—DRAINAGE WORKS .. | 38,575 | 816 | 30,633 |
| | | | | TOTAL I. B. ... | 31,03,807 | 1,76,476 | 33,40,372 |
| Receipts from other Canal produce. | 7,250 | 281 | 7,531 | (I C.)—COMPENSATION, IL—ESTABLISHMENT. | 7,632 | .. | 7,632 |
| | | | | 5.—DIRECTION AND ACCOUNT. | 6,12,572 | (b) 21,107 | 6,33,079 |
| | | | | 6.—EXECUTIVE ESTABLISHMENT. | 11,05,853 | 63,310 | 11,69,202 |
| Fines .. | 29,783 | 277 | 21,000 | (7A.)—REVENUE DO. ... | 6,62,591 | (a) 30,051 | 7,00,572 |
| | | | | TOTAL ... | 26,98,310 | 1,21,107 | 28,09,453 |
| | | | | III.—TOOLS AND PLANT. | | | |
| Miscellaneous and other Receipts | 7,711 | 1,766 | 9,480 | 1.—SCIENTIFIC INSTRUMENTS | 119 | 219 | 357 |
| | | | | 2.—PLANT AND MACHINERY | .. | .. | .. |
| | | | | 3.—TOOLS .. | 978 | 518 | 1,406 |
| | | | | 4.—NAVIGATION .. | .. | .. | .. |
| | | | | 5.—CAMP EQUIPMENT .. | 11 | 71 | 83 |
| | | | | 6.—LIVE STOCK .. | .. | .. | .. |
| | | | | 7.—OFFICE FURNITURE .. | 220 | 140 | 307 |
| | | | | 8.—REPAIRS AND CARRIAGE .. | 10,894 | 1,283 | 21,167 |
| | | | | 12.—MISCELLANEOUS .. | 37,010 | —314 | 30,672 |
| Total .. | 33,00,655 | 3,37,324 | 36,38,013 | TOTAL TOOLS AND PLANT. ... | 58,224 | 1,925 | 60,153 |
| | | | | IV.—REFUNDS OF REVENUE. | 1,131 | 40 | 1,180 |
| Contribution .. | 8,01,270 | .. | 8,01,270 | V.—PROFIT AND LOSS. | 4 | .. | 4 |
| Chlor labour .. | 24,31,233 | .. | 24,31,233 | SUSPENSE ACCOUNT. | | | |
| | | | | Miscellaneous advances .. | 71 | 100 | 261 |
| | | | | Stock .. | 46,208 | 124 | 46,322 |
| | | | | Stock sales .. | .. | .. | .. |
| | | | | Stock purchases .. | —27 | —1,813 | —1,840 |
| | | | | London stores .. | .. | .. | .. |
| | | | | TOTAL .. | 40,342 | —1,490 | 41,843 |
| Total .. | 65,80,107 | 3,37,428 | 69,73,525 | Chlor labour .. | 24,31,233 | .. | 24,31,233 |
| | | | | TOTAL .. | 92,38,177 | 3,31,620 | 95,72,697 |
| Share of Land Revenue collected in the Civil Department. | 1,00,22,700 | 4,10,619 | 1,10,39,358 | Indirect Charges debitable to Revenue Account as per Account No. 5. | 3,05,052 | 10,955 | 4,12,007 |
| | | | | TOTAL CHARGES .. | 00,34,120 | 2,51,475 | 00,85,601 |
| | | | | Balance, Not Revenue .. | 75,21,837 | 4,02,472 | 70,27,309 |
| TOTAL RECEIPTS .. | 1,71,58,006 | 7,53,047 | 1,70,12,913 | GRAND TOTAL .. | 1,71,58,006 | 7,53,047 | 1,70,12,913 |

(a.) Includes Rs. 0,461 on account of fees for collection of Revenue.

(b.) Excludes share of accounts commencing from 1912-13.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Muzaffargarh Inundation Canals Project.

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| Particulars. | Previous. | 1916-17. | Total. |
|--|-----------|----------|----------|
| | Rs. | Rs. | Rs. |
| REVENUE— | | | |
| Capitalization statement of Land Revenue | 18,355 | .. | 18,355 |
| Leave and Pension Allowances | 3,77,597 | 16,955 | 3,94,552 |
| Total ... | 3,96,052 | 16,955 | 4,12,907 |

OFFICE OF ACCOUNTANT-GENERAL
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Shahpur Canal Project—Provincial.

No. 3—REVENUE ACCOUNTS FOR AND TO END OF 1916-17.

| RECEIPTS. | PROVINCIAL. | | | CHARGES. | IMPERIAL. | | |
|--|-------------|----------|-----------|---|-----------|----------|-----------|
| | Previous. | 1916-17. | Total. | | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | | Rs. | Rs. | Rs. |
| | | | | (I.A.)—EXTENSIONS AND IMPROVEMENTS. | | | |
| | | | | 2—MAIN CANAL AND BRANCHES | 33,683 | .. | 33,683 |
| | | | | 3—DISTRIBUTARIES .. | 11,487 | ... | 11,487 |
| Occupiers' rates .. | 8,48,477 | 31,502 | 8,80,309 | TOTAL I.A. .. | 45,070 | | 45,070 |
| | | | | (I.B.)—MAINTENANCE AND REPAIRS. | | | |
| Sales of water .. | 7,423 | 600 | 8,023 | 2—MAIN CANAL AND BRANCHES | 2,38,807 | 23,476 | 2,62,283 |
| | | | | 3—DISTRIBUTARIES .. | 67,351 | 2,042 | 70,043 |
| Receipts from Plantations | 5,103 | ... | 5,103 | TOTAL I.B. .. | 3,06,158 | 25,518 | 3,32,320 |
| | | | | (I.C.)—COMPENSATION .. | 02 | | 62 |
| | | | | II—ESTABLISHMENT .. | | | |
| Receipts from other Canal produce. | 490 | ... | 490 | 5—DIRECTION AND ACCOUNTS | 51,311 | 5,370 | 56,711 |
| Water power .. | 920 | ... | 920 | 6—EXECUTIVE ESTABLISHMENT | | | |
| Fines .. | 713 | .. | 713 | 7.—OFFICIAL Do. ... | 3,21,303 | 13,438 | 3,37,801 |
| | | | | 7.A.—REVENUE Do. ... | | | |
| | | | | TOTAL .. | 3,75,704 | 18,808 | 3,94,512 |
| | | | | III—TOOLS AND PLANT .. | | | |
| Miscellaneous and other Receipts. | 3,693 | .. | 3,693 | 12.—MISCELLANEOUS .. | 1,437 | ... | 1,437 |
| | | | | 13.—REPAIRS AND CARRIAGE .. | 1,693 | ... | 1,693 |
| | | | | TOTAL .. | 3,130 | | 3,130 |
| Total .. | 8,66,830 | 32,402 | 8,99,322 | | | | |
| | | | | V.—PROFIT AND LOSS .. | 610 | ... | 610 |
| | | | | TOTAL .. | 7,30,740 | 44,970 | 7,75,710 |
| Share of Land Revenue collected in the Civil Department. | 1,75,204 | 12,973 | 1,88,177 | Indirect Charges debitable to Revenue Account as per Account No. 5. | 54,290 | 2,028 | 56,023 |
| | | | | TOTAL CHARGES .. | 7,86,030 | 47,000 | 8,33,039 |
| | | | | Balance, Not Revenue .. | 2,57,004 | —2,144 | 2,54,860 |
| TOTAL RECEIPTS .. | 10,42,034 | 45,405 | 10,87,409 | GRAND TOTAL .. | 10,42,034 | 45,405 | 10,87,409 |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Shahpur Canal Project.—Provincial.

No 5—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916 17.

| Particulars. | Previous. | 1916-17. | Total. |
|--|-----------|----------|--------|
| | Rs. | Rs. | Rs. |
| REVENUE— | | | |
| Capitalization of abatement of Land Revenue | 1,693 | ... | 1,693, |
| Leave and Pension Allowances | 52,597 | 2,633 | 55,230 |
| Total | 54,290 | 2,633 | 56,923 |

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Ravi Inundation Canals Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1916-17.

| RECEIPTS. | IMPERIAL. | | | CHARGES. | IMPERIAL. | | |
|--|-----------|----------|----------|--|-----------|----------|----------|
| | Previous. | 1916-17. | Total. | | Previous. | 1916-17. | Total. |
| | Rs. | Rs. | Rs. | I A.—EXTENSIONS AND IMPROVEMENTS. | Rs. | Rs. | Rs. |
| Occupiers' rates | 1,03,273 | .. | 1,03,273 | 2.—MAIN CANAL AND BRANCHES | 500 | .. | 500 |
| | | | | TOTAL I. A. | 500 | .. | 500 |
| | | | | II.—MAINTENANCE AND REPAIRS. | | | |
| Sales of water | 297 | .. | 297 | 1.—MAIN CANAL AND BRANCHES | 89,597 | .. | 89,597 |
| | | | | 7.—DISTRIBUTARIES | 9,522 | .. | 9,522 |
| | | | | TOTAL I. B. | 99,119 | .. | 99,119 |
| Fines | 34 | .. | 34 | I. C.—COMPENSATION | 34 | .. | 34 |
| | | | | II.—ESTABLISHMENT. | | | |
| | | | | 1.—DIRECTION AND ACCOUNT (a) | 19,913 | 2,109 | 22,052 |
| Miscellaneous and other receipts. | 8 | .. | 8 | 8.—EXECUTIVE ESTABLISHMENT | | | |
| | | | | 7.—MEDICAL do. | 1,15,053 | .. | 1,15,053 |
| | | | | 7A.—REVENUE do. | | | |
| | | | | TOTAL | 1,34,966 | 2,109 | 1,37,105 |
| | | | | III. TOOLS AND PLANT. | | | |
| | | | | 12.—MISCELLANEOUS | 1,722 | .. | 1,722 |
| TOTAL .. | 1,03,614 | .. | 1,03,614 | 13.—REPAIRS AND CARRIAGE.. | 915 | .. | 915 |
| | | | | TOTAL | 2,637 | .. | 2,637 |
| | | | | IV.—REFUNDS OF REVENUE | 1,000 | .. | 1,000 |
| | | | | TOTAL | 2,30,292 | 2,109 | 2,40,401 |
| Share of Land Revenue collected in the Civil Department. | 1,30,303 | 3,222 | 1,29,685 | Indirect Charges debitable to Revenue Account per Account No. 5. | 18,899 | 295 | 19,104 |
| | | | | TOTAL CHARGES | 2,67,191 | 2,401 | 2,50,596 |
| | | | | Balance, Not Revenue | —25,214 | 818 | —21,396 |
| TOTAL RECEIPTS .. | 2,31,977 | 3,222 | 2,35,199 | GRAND TOTAL | 2,31,977 | 3,222 | 2,35,199 |

(a). Share of Account excluded from 1912-13.

IRRIGATION BRANCH.

OFFICE OF ACCOUNTANT-GENERAL.

PUNJAB PROVINCE.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1916-17.

Ravi Inundation Canals Project.

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-17.

| Particulars. | Previous. | 1916-17 | Total. |
|----------------------------------|-----------|---------|--------|
| | Rs. | Rs. | Rs. |
| REVENUE— | | | |
| Leave and Pension Allowances ... | 18,899 | 295 | 19,194 |
| Total ... | 18,899 | 295 | 19,194 |

